

# ITEMS OF INTEREST.

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## *Notes from the Profession.*

### Our Question Box,

With Replies from our Best Authorities on Dentistry.

Address all questions for this department to DR. E. N. FRANCIS, UVALDE, TEXAS.

*Question 6.—A. After extracting, when the periosteum is inflamed, the patient often complains of pain and thinks the tooth has not been all removed. What do you use to relieve pain under these circumstances?*

*B. Does pink rubber have a better color vulcanized by steam or "dry air" than that vulcanized under water?*

*C. I am about to open an office and am making out a list of instruments. I wish to order a set of rubber-dam clamps, but cannot afford any fancy or useless styles. How many clamps will I require for the average operation and what make or numbers do you advise?*

*D. What is the best coating for plaster casts in vulcanizing?*

A. For pain after extracting I prescribe calendula, applied to socket on cotton.

B. For pink rubber I use steam, and after the plate is finished give it a sun bath in alcohol for one or two hours.

Schenectady, N. Y.

B. F. CARMICHAEL.

A. I use a very weak solution of carbolic acid.

B. I think pink rubber has a better color vulcanized under water; and after polishing the piece put it in pure alcohol, set it in the sun in a covered glass, and you can make it any color you wish.

Benicia, Cal.

W. A. MOORE.

A. After extracting, when the periosteum is inflamed, and the patient complains of pain, I have them hold hot water in their mouths till the pain subsides.

B. I get the brighter pink rubber vulcanized under water, if I take plenty of time to run it up slowly, otherwise it will be dark.

Los Angeles, Cal.

C. V. BALDWIN.

A. Where pain is intense, immediately following extraction, I introduce a *small* amount of carbolic acid clear to the bottom of cavity. If pain continues, I find water, hot as can be held in mouth, and repeated frequently, a better alleviator than medication. I advise its use after ALL extractions.

B. I seldom use pink rubber, as I consider it a poor substitute for gum appearance under any manipulation.

Fernandina, Fla.

W. E. SNYDER.

A. I wind a little cotton on an instrument, moisten with carbolic acid, wipe cavity as soon as the tooth is extracted, and have no further trouble.

B. I use a three flask vulcanizer, put centre rim of a flask in the bottom of vulcanizer, and use water enough to just cover the rim, and set the flask on that. I remove the flask soon as steam is off. I think this as good as any steam apparatus, and there is no such thing as dry air.

Pulaski, N. Y.

F. J. BRADNER.

A. A small pellet of cotton, dipt in a saturated solution of gum camphor in ether and placed in cavity after extraction relieves the pain in a very short time. For inflammation of gums a local application of carbolic acid, tinct. iodine and glycerin, in equal parts, applied in the same way is one of our best remedies. I have been using this for a long time and don't know how I could get along without it.

B. I have yet to find any pink rubber that comes out with a satisfactory color.  
Eutaw, Ala. R. E. WATKINS.

A. I have found the following recipe successful in relieving pain, viz.:

<b>R</b> Tr. aconitii rad. ....	.5 j	
Chloroform.....	.5 iss	
Alcohol.....	.5 j	
Morph. acit.....	gr. v.	M.

Introduce into the socket cotton saturated with this. It will also allay pain in periostitis.

I have lately used Dr. T. B. Welch's recipe, viz. :

<b>R</b> Alcohol (best).....	.5 j	
Chloroform.....	.5 ij	
Sulphuric ether .....	.5 ¾	
Gum camphor.....	.5 ss	
Laudanum.....	.5 j	
Oil of cloves.....	.5 ss,	

and find it acts like a charm in just such cases as referred to in the question. Either recipe gives excellent results, but I prefer Dr. Welch's.

B. To this I cannot give a proper answer, for I have never vulcanized by steam or "dry air." I will say, however, that I use No. IX English pink ; expose denture when finished in a glass vessel, filled with alcohol 95 per cent., to sun light for from thirty to forty-five minutes, which brings out original color.

Tucson, Ariz.

F. A. ODERMATT.

C. I should think Palmer's set of clamps would meet all demands.

D. I regard tin the *best* coating for plaster models. Next to that, liquid silex.

Burlington, Iowa.

O. H. DENISE.

C. I use White's clamps, Nos. 9, 17, 24, 25, 28, 29, 47, 48, 61, 62, 72, 74, 124, 125.

D. Soap dissolved in hot water.

Athens, Geo.

H. A. LAWRENCE.

C. For all ordinary operations two clamps are quite sufficient ; a universal molar and one universal bicuspid clamp.

D. A fine grade of dental plaster needs only No. 12 tin foil as coating over model or cast.

Kansas City, Mo.

JEROME STUART, D.D.S.

C. I am sorry to say I am not an expert with clamps, and cannot answer your first question as well, perhaps, as some others.

D. I think tin foil the best to cover models with. I use pure tin quite heavy.

North Adams, Mass.

A. F. DAVENPORT, D.D.S.

C. I only use clamps on back teeth, as they give great pain. Keep a half dozen in office. I think Dr. Palmer's set of thirty-two is the best, as they are made to fit each tooth ; buy such as you like of the set.

D. I like and always use liquid silex for plaster casts.

San Antonio, Texas.

G. W. PHILLIPS.

C. Dr. Palmer's set of eight dam-clamps is practically enough, and cheapest.

D. Best coating for casts is pure tin-foil, rubbed smoothly on with handkerchief and afterward eaten off with dilute muriatic acid. Foil used in filling teeth, or give each two coats of pure sperm or olive oil.

Evanston, Ill.

CHAS. A. P. GARNSEY.

C. S. S. White's No. 29. Cut or file sharp edges off, so as not to scratch enamel.  
 Dr. E. C. Moore's No. 63. The jaw of the rubber-dam forceps may be wrapt with paper, so as to expand these clamps enough to go over any tooth. For other cases use silk or wedge.

D. Liquid silex.

Annapolis, Md.

GORDON CLAUDE.

C. I am using Evans' incisor and bicuspid, How's cervex, Dr. Geo. St. Elliott's and Dr. Tee's festooned, and find them all I need; making in all seven clamps.

D. I use liquid silex and prefer it to anything else.

Washington, D. C.

DR. A. H. LEE.

C. I have practised dentistry for over thirty-two years, and I do not use the rubber-dam; use napkins and cotton.

D. For coating casts before vulcanizing, I simply have my hands clean, then dip two fingers in water and rub them on a cake of soap; then on the cast till it is perfectly coated over with the soap. I find this the best coating I ever used, and for trial plate I use tea lead, such as comes in tea chests, covering it, after being shaped to the cast, with bees'-wax the required thickness.

Allegan, Mich.

JAMES E. FULLER.

C. In my eight years' experience I have found the most use for Palmer's clamps; have the whole set, or nearly all; but have the most use for his molar clamps Nos. 106 and 114, Picuspid's No. 113, and his R. I. made by S. S. White. Then I use two molar clamps of S. S. White's own make; also use White's clamp No. 75 with set screw; also Barbour's No. 25 schoolthread in place of clamps.

D. I use liquid silex thin; that is, one part silex to two parts water; if I find it too thick, or it adheres to plate by leaving white spots, I thin out more with water.

Baltimore, Md.

HENRY T. ABENDSCHIEF, D.D.S.

A. I would advise any one to go slowly in buying instruments unless they have plenty of money. Two ordinary molar clamps with wide flanges, and two labial service clamps (on upper incisors and cuspids) is all will be required at first, and, in fact, is about all I have after being in practice ten years.

B. I use silex as a coating for castings.

Bangor, Maine.

L. S. CHILCOT.

### Trouble With the Antrum.

DR. B. D. FRIEDENWALD, D.D.S., BALTIMORE, MD.

TWO interesting cases of antrum trouble have come under my observation within the last two months, the records of which I take the liberty of presenting to your readers.

CASE I.—April 8 Mrs. M., aged forty, came to me, complaining of severe tooth-ache. On making an examination I found the left lower first molar sensitive to pressure. The tooth was filled with amalgam, and after considerable trouble, causing great pain, I succeeded in removing the filling. The patient's face began to swell; the pain was intense, and could only be relieved by doses of opium.

April 11 she came again in terrible agony, and insisted on the removal of the tooth. Extracting the tooth, I found a well-formed pus sac clinging firmly to one of the roots. I washed the socket with a solution of bichloride of mercury (1-1,000). After the extraction, the patient became easy, and soon felt entirely well. April 18 I was sent for in great haste, and found her suffering violent pains. All the teeth in the upper jaw were also sore. Her face on the left side was much swollen, and I advised poulticing. After poulticing for four days, and being unable to detect any fluctuation, I concluded my diagnosis was incorrect, and that my patient was not suffering from alveolar abscess.

On throwing the patient's head to the side, she informed me that she felt a sensation similar to that when water was in her ear after bathing. I then concluded

that hers was a case of suppuration of the antrum. This sensation increased daily, and the swelling became more and more apparent.

April 25, after thoroughly satisfying myself that my last diagnosis was correct, I concluded to give the confined pus an exit.

After having the patient thoroughly wash and rinse her mouth with a solution of bichloride of mercury, and after washing her face with a similar solution, by means of a small trephine I made an opening into the antrum at the canine fossa. A large quantity of pus flowed through the opening, greatly to the relief of the patient. After the flow of pus had ceased, a small gold drainage tube was inserted and secured by means of silk ligatures to the adjacent teeth.

Pus continued to flow for several days. When it had ceased, the antrum was syringed daily with a weak solution of aromatic sulphuric acid. This treatment was continued for ten days. The face now assumed its normal condition, and the patient was without pain. The drainage tube was then removed and the syringing discontinued. The opening healed quickly, and the patient has been entirely well.

CASE II.—April 28 Mr. B., aged twenty-five years, came to my office complaining of pain in his head, which he thot due to some diseased roots of teeth in his mouth. On making an examination, I found the left upper first and second molar roots in bad condition, and extracted them. I washed both mouth and sockets with a solution of bichloride. At about ten o'clock the patient left the office. At one o'clock he came back. Blood was pouring profusely from the sockets. After washing them I forced hard balls of cotton, well saturated in a solution of tannin and glycerin, into the sockets. The hemorrhage ceased, and the patient went his way. At four o'clock he came in again, telling me that the blood pressure had forced the cotton out, and that he had been bleeding for nearly an hour. I again forced cotton up into the sockets, this time saturating them with Monsel's solution of iron. The hemorrhage seemed to stop and the patient again left.

At about eight o'clock in the evening he sent for me to come to his house. On arriving, I found him again bleeding profusely. He told me he had not touched the cotton, but that the blood pressure had forced them out. The patient had lost considerable blood by this time, and was becoming very weak. I again, after saturating pledgets of cotton with Monsel's solution of iron, forced them tightly into the sockets. Over this I placed a cork, and closed the teeth firmly on it, and then thoroughly bandaged the head, not allowing the patient to open his mouth, and thereby remove the cork. This bandage was not removed for two days, excepting when I removed it to allow my patient to take some nourishment. When I removed the bandage the hemorrhage had ceased.

May 2 the patient came to me again. He had no decided pain, but complained of an uneasy feeling in his face. I advised no treatment, telling him I thot it would pass off. In a few days his face and mouth began to swell, there was a feeling of fullness and much pain. After poulticing for several days and no alveolar suppuration, I decided to await further developments.

May 8 I diagnosed his as a case of suppuration of the antrum, as a slight discharge through the nose was preceptible; he could hear the characteristic noises in his head and could feel a fluid run on throwing his head from side to side.

May 9 I passed a small silver probe into the antrum through one of the sockets of the extracted first molar. On withdrawing my probe some little pus flowed out. The swelling then went down, the pain ceased, and May 12 the patient went away on a business trip. May 26 he returned to Baltimore, and on the following day came to my office. I found his face much swollen and very painful. I advised opening into the antrum and inserting a drainage tube. He left, telling me he would make up his mind in a few days.

On the night of June 7 I was sent for, and found him in great pain. I introduced a probe into the antrum through the same opening, as I had before done; and, after a little pus had flowed out, he felt relieved, but very much nauseated. Twenty-

five drops of aromatic spirits of ammonia checked the nausea, and he soon fell asleep. On awaking in the morning he had no pain.

On June 9, at eight P. M., I was sent for, and found the patient in great pain. He was very much nauseated, and had some fever. His temperature was  $102\frac{1}{2}$ ; his pulse 90. A dose of aromatic spirits of ammonia was given to relieve nausea, and ten grains of antipyrine administered to bring down his temperature.

On the morning of June 10 I found his pulse and temperature both normal. He was feeling better, and consented to have the operation performed in a few days.

On June 12 he was feeling very badly generally, and after assuring him I thot the operation would give him almost immediate relief, I proceeded to make preparations. His mouth was well washed with a solution of bichloride of mercury. All the instruments to be used were thoroughly disinfected in a solution of carbolic acid. An opening was then made by means of a trephine just at the canine fossa. As soon as the button made by the trephine was removed, a large quantity of pus flowed through the opening, which was then made larger by a bone reamer, till it measured almost a quarter of an inch in diameter. I next enlarged the opening in the antrum through the molar socket. When pus had ceased to flow, the antrum was washed out by syringing a solution of bichloride of mercury in it through the molar socket. The fluids found a thorough drain through the opening at the canine fossa. As the drain was good I thot it unnecessary to encumber the patient with a drainage tube.

The antrum was washed out twice daily by syringing with a weak solution of aromatic sulphuric acid, the opening being kept open by twice daily introducing a probe. The patient was relieved as soon as the pus had found an exit. The swelling quickly subsided, and the young man has since had no trouble.

### Bacteria in Disease, and Peroxide of Hydrogen as a Cure.

CHARLES MARCHAND, CHEMIST, NEW YORK.

THE branch of science named bacteriology was opened to the medical profession by the classical researches of Prof. Pasteur in the settlement of the question of spontaneous generation, and in his subsequent studies of the process of fermentation. With the investigations of that distinguished French *savant* began our first positive knowledge of the definite relations of bacteria to disease in the animal kingdom.

Prof. Robert Koch, of Berlin, has contributed widely by his experiments to the progress in knowledge of the etiology of infectious and contagious diseases.

Owing to the methods which he has devised to practically and easily isolate different species of bacteria, we are now able to follow the phases of their development in pure cultures, under varying circumstances.

Microscopical examinations show that, during the various stages of their life, bacteria present different forms and dimensions; but it is also demonstrated that one species of bacteria, placed under the same circumstances, always present the same forms, and produce the same effects.

Bacteria are principally constituted by an albumoid substance, called micro-proteine.

The pathogenic bacteria only are of the greatest interest to the physician, and, according to the definition given by Prof. Koch, a micro-organism is pathogenic when it presents the following characteristics:

*First*—It must be found in the excretions, secretions, or tissues of the animal suffering from the disease.

*Second*—The micro-organism must be cultivated out from the organism.

*Third*—A pure culture inoculated in an animal should reproduce the disease.

*Fourth*—The bacteria should be found in the humors or tissues of the animal after death.

Pathogenic bacteria are differently affected in their infective power by the soil in which they grow; some of them have a limited or local action, and others produce the infection of the whole system with a prodigious rapidity.

These facts have been demonstrated from microscopical examinations; for example, the autopsy shows that the blood of a patient who died from diphtheria is invaded with a large number of microbes called micrococci, the same microbes being detected also in the diphtheritic membrane, which was at first the seat of this infectious disease.

The microscopical examination of the blood of a patient who died from anthrax shows the presence of bacillus anthracis, which was at first found only in the excretions or pus coming from the infected surface.

Consequently the contagion is not always immediate. During this period of localization of the disease, the microbial element should be destroyed by a proper medication, to prevent its propagation through the whole system.

Micro-organisms or germs in the atmosphere have been shown by Ehrenburg to exist in masses or clouds; so that, in a room containing infection, a portion of the air may be loaded, while other portions are nearly free, which would seem to explain cases of escape from septic or zymotic influences.

It is owing to the presence of these micro-organisms that Profs. Pasteur, Koch, Tyndall, and others have been able to establish the germ theory of disease.

**DISEASES CAUSED BY GERMS OR MICROBES.**—It is to the micro-organisms we are indebted for catarrh, ozena, hay fever, diphtheria, croup, sore throat, quinsy, tonsilitis, bronchitis, whooping-cough, laryngitis, pharyngitis, pneumonia, consumption, catarrh of the stomach, women's weaknesses, whites, leucorrhœa, typhoid fever, scarlet fever, measles, small-pox, skin diseases, yellow fever, cholera, abscesses, carbuncle, ulcers, gonorrhea, syphilitic sores, and other chronic affections.

It is no wonder, after becoming acquainted with these facts, that scientists have studied with such care the properties of antiseptics to destroy the germs.

**DESTRUCTIVE ACTION OF OZONE ON THE VIRUS.**—A fact known by bacteriologists and chemists is that: All virus is albuminoid, whether propagative or not; it is destroyed, or by coagulation rendered inert, by the oxidizing action of "ozone," just as it is by contact with corrosive sublimate and other antiseptics.

Then, it is evident that if some substance could be produced which would oxidize or destroy these micro-organisms, so as to change their infectious character, a great benefit would result, providing this destroyer of germs would have no injurious consequences upon the life of animals.

Such a substance we have in ozone,  $O_3$ , or condensed oxygen,  $O_2 + O$ . It is nature's disinfectant.

Houzeau found the air of the country, at the height of six feet above the ground, to contain  $\frac{1}{100000}$  of its weight of ozone, or  $\frac{1}{700000}$  of its volume.

This very small quantity of ozone is sufficient, owing to its wonderful oxidizing power, to destroy germs.

"Ozone" is a normal constituent of fresh air; its proportion varies with temperature and electric conditions of the atmosphere.

Billard, Wolf, Boeckel, and Strambes agreed that cholera, when it raged in Strasbourg, Berlin, and Milan, coincided with the absence of ozone in the atmosphere, and that ozone reappeared at the end of the epidemic.

These observations are in perfect accord with those obtained by Dr. F. H. Hammond. Dr. Moffatt, Romain Vigouroux, Uhle, and numerous other scientists also attribute the prevalence at time of cholera and malarious fever, to the absence of ozone in the air.

Is it due to an excessive production of miasms relatively to the normal proportion of ozone, or is it because "ozone" is in deficiency to destroy these germs?

No one could answer this question, but the positive fact is that: "If ozone is in excess, there is no epidemic."

The wonderful antiseptic value of "ozone" has attracted the attention of all scientists, and many chemists have devised different methods of its production; but no one of these processes could be used to manufacture ozone industriously.

We have in peroxide of hydrogen,  $H_2O_2$ , a substance which is always on a strain to break up into water and nascent oxygen, or ozone.

This fact, that peroxide of hydrogen generates "ozone," is proved by experiments which I have made to establish the comparative chemical reactions between these two wonderful bactericides.

Pure anhydrous peroxide of hydrogen yields four hundred and seventy-five volumes oxygen; that is, it gives off four hundred and seventy-five times its own volume of oxygen. It is a very unstable liquid compound, having by itself a slight acid reaction to the litmus paper. Its decomposition into water and oxygen takes place under the most enigmatical influences. Hence it is not an article of commerce. Charles Marchand's Peroxide of Hydrogen (medicinal) is really a  $3\frac{1}{2}$  per cent solution of the anhydrous peroxide in water; 1 per cent solution yields 4.75 times its own volume of oxygen. Consequently, the peroxide of hydrogen (medicinal) I manufacture yields  $3\frac{1}{2}$  times (4.75) its own volume of oxygen, viz., a trifle more than fifteen times its own volume of oxygen gas. It is called a 15-volume solution.

Owing to the unstableness of this compound, my medicinal preparation is acidulated with  $\frac{1}{30000}$  of hydrochloric acid and  $\frac{1}{30000}$  of phosphoric acid. This acid is indispensable to preserve the solution from rapid decomposition, and it is unnecessary to neutralize these traces of acid, before use, even in the most delicate cases.

All injurious chemicals are eliminated from it. It is a colorless, almost tasteless, and odorless liquid. Being kept in a cool place, such as a cool cellar or a refrigerator, it will not deteriorate, and will keep for any length of time.

The fifteen-volume solution of peroxide of hydrogen (medicinal) freezes at a temperature of  $10^\circ$  to  $11^\circ$  Fahr.; in this event, thaw it out slowly at a temperature not exceeding  $70^\circ$  Fahr., and it will not lose any of its strength.

The fact that peroxide of hydrogen is the most powerful pus-destroyer is so well-known among physicians who have used it that it is acknowledged to be unsurpassed as a cleansing agent for pus-discharging surfaces, especially in cases otherwise difficult of access, for the instant it touches pus, "ozone" is set free, effervescence takes place, and continues till the pus is destroyed. Physicians may apply this remedy with perfect safety, and they will always obtain satisfactory results in the treatment of affections caused by germs or microbes. For example, peroxide of hydrogen should be applied to the treatment of the following diseases:

Open boils, open abscesses, mastoid abscesses, ulcers (syphilitic or not), scrofulous sores, cancerous sores, bed sores, local gangrene, broken ampulla or blisters, aphthæ or ulcerations of the mouth, stomatitis, burns, herpes zoster or zona, eczema, skin diseases, itch, piles, and all microbial affections.

**TREATMENT.**—As a rule, these diseases should be treated as follows:

*First.*—By means of a glass dropper, or otherwise, apply to the sore, and take care not to remove the white foam which is generated when this remedy comes in contact with the diseased surface; let it stand till it disappears, which occurs in a few minutes.

Then, by means of a glass dropper or a soft camel's-hair brush, apply the glycozone to the sore, and cover it with a double thickness of surgical lint soaked in it.\*

Owing to its wonderful bactericide properties, the peroxide of hydrogen (medicinal) is the most powerful remedy to apply to cure the dental affections which are known to be caused by germs or microbes, such as, for example:

Alveolar abscesses and abscesses of the inferior maxilla.

Laceration, inflammation, and ulceration of the gums; stomatitis.

Necrosis and caries of the teeth.

The therapeutical agents used for the treatment of these diseases have been

\* It is advisable to apply both "Marchand's Peroxide of Hydrogen (medicinal)" and "Glycozone," full strength, but it is not always possible, in cases when the sore is exceedingly tender. When such is the case the peroxide of hydrogen should be diluted with water and the glycozone thoroughly mixed with chemically pure glycerin.

chloride of sodium, salicylic acid, chloride of zinc, nitrate of silver, creosote, and carbolic acid.

With the exception of chloride of sodium, which has no appreciable destructive action on the microbial element, the others are poisonous, and, owing to their corrosive properties, the dentists cannot always limit their action to the affected parts.

The creosote and carbolic acid have such an offensive odor that they should not be used.

On the contrary, peroxide of hydrogen is absolutely harmless; it is almost odorless and tasteless.

By the healing power of this wonderful remedy the diseased surface is made healthy and the surrounding tissues remain in their normal condition.

**ALVEOLAR ABSCESSES AND ABSCESSES OF THE INFERIOR MAXILLA—TREATMENT.**—When an alveolar abscess is caused by any constitutional derangement, internal medication would necessarily have to be prescribed.

The local treatment demanded is such as will destroy the accumulated pus.

At first the abscess should be broken by a surgical operation or otherwise; then the cleansing and destruction of pus will be accomplished instantaneously as follows:

By means of a silver, gold, or platina syringe; administer into the cavity, morning and evening, one or two injections with a mixture of

1 part Marchand's peroxide of hydrogen (medicinal)  
with 3 to 4 parts of water.

In the treatment of abscesses of the inferior maxilla, where there is no free egress for the pus and débris, much more energetic treatment is necessary, and the dentist need not hesitate to administer injections, morning and evening, with a mixture of

1 part peroxide of hydrogen (medicinal)  
with 2 parts of water.

Besides the above local treatment the mouth should be kept clean by frequent washings with a mixture of

1 tablespoonful of peroxide of hydrogen (medicinal),  
diluted in half a tumblerful of tepid water.\*

By following this treatment the diseased tissues become healthy after one or two applications, and an absolute cure is effected in half the ordinary time.

**LACERATION, INFLAMMATION, AND ULCERATION OF THE GUMS—STOMATITIS—TREATMENT.**—Peroxide of hydrogen is the most powerful remedy which may be applied in order to subdue these very tenacious and painful affections.

It should be used freely and repeatedly as a tooth-wash, morning and evening, in the following proportion:

1 ounce medicinal peroxide of hydrogen,  
diluted with half a pint of water.

Rinse the mouth well, and retain this liquid in the mouth for one minute or so at each washing. No injurious action on the enamel of the teeth need be feared.

The gums are strengthened by this treatment, healthy granulations develop very rapidly, and an absolute cure is quickly effected.

When the above diseases of the gums are caused by constitutional derangement internal medication would necessarily be prescribed.

**NECROSIS AND CARIES OF THE TEETH.**—Excessive medication, especially with mercury, will sometimes produce partial, and, occasionally, total necrosis.

The profession know that the most common agents that injure the teeth are originated in the mouth by the decomposition of animal and vegetable matter.

Inflammation of the mucous membrane of the mouth is a common result of diseased teeth.

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\* In chronic cases, during four or five days, floss silk or absorbent cotton, moistened with glycerine, should be applied immediately after each cleansing of the cavity.



The caries may be constitutional or local, and, if constitutional, it may be modified by therapeutic treatment of the general system.

In all cases of caries the aggravation of the disease will always be prevented by using frequently and copiously as a tooth-wash a mixture of

1 to 2 ounces of Marchand's peroxide of hydrogen (medicinal)  
with half a pint of water.

Rinse the mouth well, at least morning and evening, and retain this liquid in the mouth for one minute or so at each washing.

When the caries is local an absolute cure is promptly accomplished by the above treatment.

**CATARRHAL CONJUNCTIVITIS, OR OPHTHALMIA—CAUSES.**—All the forms of conjunctivitis which are accompanied by secretion are caused by germs which develop under favorable circumstances, producing a local infection which is contagious to the highest degree.

The virulence of the contagion increases with the impurity of the atmosphere, and this disease is communicated by conveyance of secretion from one to another by towels, handkerchiefs, etc., with a prodigious rapidity.

Besides a proper ventilation it is necessary to isolate sick people, and also to keep them perfectly clean to prevent the contagion; for instance, when any form of conjunctivitis appears in a public institution it is urgent to put all the affected persons apart from the healthy.

Numerous analyses to ascertain the nature of the remedies ordinarily applied in the treatment of this disease show that they are nitrate of silver, sulphate of zinc, sulphate of copper, bichloride of mercury, red oxide of mercury, carbolic acid, alum, sugar of lead, tannin, borax, boracic acid, sulphate of atropine, and cocaine.

Tho some of these remedies have a destructive action on the microbial element which is the cause of this disease, such remedies should be condemned, owing to their corrosive and irritating properties. In some instances they have the most injurious effect on the cornea, and often destroy not only the germs of the disease, but also weaken or destroy the optic nerves, and for this reason their use proves more dangerous than the disease itself.

Tannin, borax, and boracic acid are not dangerous remedies; but their bactericide power is so feeble that a cure could not be effected by their action, since they cannot remove the cause of the infection.

On the contrary, peroxide of hydrogen removes the cause of the disease, and glycozone, by its strengthening and curative action, makes the mucous membranes of the eye grow stronger daily.

**TREATMENT.**—First the eyelids should be cleansed by a thorough washing made with a mixture of

1 ounce Marchand's peroxide of hydrogen (medicinal)  
with 2 pints of lukewarm water;

then by means of a glass dropper apply to the inner portion of the eye, next to the nose, one, two, or more drops of glycozone every night before retiring and first thing in the morning.

If no dropper is at hand apply the remedy with a soft camel's-hair brush, dipt in the glycozone, to the outer edge of the eye, with an outward motion of the brush, or it may be applied with the finger. In whatever manner the glycozone is applied it penetrates the inner surface of the eye by simply opening and shutting the eye a few times.

At first it causes smarting and often severe pain for a few seconds, but it is only momentary.

**PURULENT CONJUNCTIVITIS—OPHTHALMIA NEONATORUM, OR OPHTHALMIA IN CHILDREN.**—The ophthalmia neonatorum, or ophthalmia in children, is much more dangerous in its consequences than the catarrhal conjunctivitis.

This disease, which is the most frequent source of blindness in children, can always be cured if treated as follows :

First cleanse the eyelids by a thorough washing with a mixture of  
1 ounce peroxide of hydrogen (medicinal)  
with 1 pint of lukewarm water.

This should be done three times, or at least morning and evening, every day. Each cleansing should be immediately followed by the application of glycozone.

GRANULATED EYELIDS.—Same treatment as catarrhal conjunctivitis.

In all diseased conditions of the eyes the patients should expose themselves to air-draughts or bright light as little as possible, and the bowels should be kept open by suitable internal medication.

Owing to its wonderful bactericide properties peroxide of hydrogen is of great value in cases of obstinate chronic suppuration of the middle ear, especially where it is difficult to reach all the suppurating tract by any local agent.

The fact that it can be forced through the osseous sinuses without danger highly commends its value in the different diseases just mentioned.

In case of profuse suppuration the cleansing and destruction of pus should be made perfect by applying the remedy in the following manner :

By means of either a glass or a hard rubber syringe inject into the cavity morning and evening half an ounce of peroxide of hydrogen, full strength; let the remedy act during two or three minutes, and then apply into the ear, as a dressing, a small quantity of absorbent cotton well impregnated with glycozone.

Two washings with peroxide of hydrogen and two dressings with glycozone, applied every day, will cure the most obstinate chronic case in a very short time.

When the disease is not chronic, the suppuration being relatively limited, instead of applying peroxide of hydrogen, full strength, it should be diluted with lukewarm water in the proportion of half-and-half.

The local dressing should be always made with pure glycozone.

### “The Secret of a Quack.”

DR. GORHAM'S article in September ITEMS, and Dr. Welch's remarks on the subject seem to show a decided difference of opinion. Dr. Welch believes that these traveling dentists (?) are usually ignorant and unskilful, but asks if some of them do not extract teeth without pain, or with less pain than the average dentist of the profession. From his remarks, he evidently thinks they do, and by the use of an abundant, tho he does not tell us exactly how.

I have never believed that these “traveling mountebanks” extracted all teeth without pain, but I do believe they extract teeth with less pain than the average dentist. The “secret,” in my opinion, consists in *extracting the tooth quickly*. The fact that they break so many teeth supports this theory; and any dentist of experience knows that if a tooth be extracted by a sudden jerk the operation will usually be painless, while to deliberately pull it will hurt. Their abundant, doubtless, has some effect, and the persons operated on are also influenced by “suggestion”—being led to believe the extraction will be painless. But the “secret” is shown in their sleight of hand in jerking out teeth, and in the slight respect they have for the patient's jaw.

Now, if there is a local anesthetic so powerful that by simply dipping the beaks of the forceps into it, or by rubbing it on the gums, this dreaded operation may be made painless—and if it is not too dangerous for dentists of ordinary intelligence to use—it is the anesthetic we want, and have spent much money in trying to obtain. If such a thing is known, why does not some dentist, for the sake of suffering humanity and the honor of the profession, give us the formula, or let some mountebank, for filthy lucre, patent it and amass a fortune? Then we could banish chloroform, ether gas and cocaine, and our patients would call us blessed. Who will confer on us this favor?

Brownsville, Texas.

C. H. THORN.

## Pulmonary Consumption and Cure by Liquid Food.

W. H. BURT, M.D., CHICAGO, ILL.

IT is estimated that more than one-eighth of the entire mortality of the human family is caused by the fatal ravages of tuberculosis. Any treatment, therefore, that will lessen this great mortality, will be accepted by man, as not only a blessing, but a great boon to those suffering with this fatal malady.

Eight months ago, while reading about the wonderful cure of obesity in Prince Bismarck, by taking away all liquids and the carbo-hydrates, and putting him on a nitrogenous diet, it flashed through the author's mind: "If the taking away of water and the carbo-hydrates from an obese person will arrest the obesity, will not the giving of an abundance of water, commingled with the carbo-hydrates, cure all wasting diseases, especially that of tuberculosis? At once he resolved to give this hint a clinical test, and the results have surpassed his most sanguine expectations, and he now announces that the *suralimentation* of liquid food is not only the *greatest* of all *known prophylactics*, but that it will *actually arrest and cure tuberculosis*, or pulmonary consumption. The author says:

When used in the first and second stages of phthisis, it will enable the physician to cure more than fifty per cent of the patients that would have to die, with the best methods known to medical science. In the third, or last stage, it will give only temporary relief. All persons suffering from wasting diseases, and particularly that of tuberculosis, require considerable more food than people in health, on account of the greater bodily waste going on in the system. The digestive powers of the system in those suffering with phthisis have no relation to the appetite; when liquid food is introduced into the digestive canal, an immense quantity will be digested and assimilated perfectly.

*Suralimentation* (excess of food) of liquid food produces rapid gain in weight and strength.

When fluid food is taken in excess, the general atonic condition of the body, with its emaciation and debility, gives away to increased nutrition and tonicity. The cough, expectoration, hectic fever and night sweats cease under the influence of the *suralimentation* of water.

Water is the most important of all liquid foods; over three-quarters of the human body being water, it follows, therefore that over three-quarters of our food should be water.

Water is the greatest tonic that can enter the human body; when taken into the system, it assists in building up the organism and repairing its tissues when worn out.

Water constitutes a part of every tissue in the body; both uncombined and also chemically combined, with the tissues in such a way that it cannot be driven off by evaporation.

Water maintains a proper bulk in the blood and tissues, rendering them mobile and soft, instead of dry and hard.

Water holds in solution the waste matter of the body and transports it out of the system.

Water takes up the waste heat of the body and carries it away; and three-quarters of our bodies being water, it wastes with every breath and motion of the body; and this waste must be constantly restored by a fresh supply.

Water is the natural beverage of man; it slackens his thirst, and cools his blood in warm weather and during a fever. When taken hot, it carries heat into the circulation, after exposure to cold.

Water is essentially requisite in the process of digestion and absorption, and as a food solvent.

Water promotes an active circulation of the fluids, and accelerates albuminous metabolism.

Water increases the activity of the kidneys and the amount of urine secreted.

Water, in large quantities, increases the elimination of urea, and in this way acts as an accelerator of nutritive changes.

Water, passing from the fluid form to that of vapor, is the means of keeping down body temperature, which otherwise would rise to a point incompatible with the capacity for exertion, and with life itself.

Water being exhaled in great quantities from the skin, renders drink imperative, whether it be in the tropics, or the heat of iron works, or in stoke holes.

Water, to the amount of six pints, is required daily, to meet the water lost by the kidneys, skin and lungs, to sustain the normal adult body in health; and twice that amount in wasting diseases.

Water is required for the secretion of the saliva, the gastric juice, the bile, the pancreatic flow, and the intestinal secretions.

Water drank copiously at our meals does not dilute the gastric juice, but greatly assists digestion.

Water enters into the composition, in variable proportion, of all solid and liquid foods, and is the essential basis of all our beverages.

*Suralimentation* of liquid food should always have combined, and used in conjunction with it, the best remedies known to medical science.

[There are so many excellent things in this book we have ordered a few to supply our friends. Price \$2.00.—T. B. Welch, Vineland, New Jersey.]

## Irregularities of the Teeth.

PROF. S. H. GRIDFORD, IN HIS ORTHODONTIA.

ORTHODONTIA, or the general subject of irregularities of the teeth, has, of late years, attracted more attention than formerly; perhaps because regulating teeth is more under control by skilful dentists.

We must not, however, boast very much, for the acquired irregularity is almost always curable, hereditary irregularity is often very stubborn; and even when overcome, is quite apt to return, unless treated with great intelligence for a long time, or its relapse is prevented by the new position of the tooth.

Failure to regulate is often charged to this stubbornness of hereditary tendency. But this will not do. Most cases of irregularity are not hereditary; and if our failure is of this kind, it should probably have been a success, for generally they are to be overcome by judicious treatment, unless the patient fails to co-operate with us.

In America, where we are having, and have been having for many years, the immigration and intermingling of all nationalities, we are constantly encountering this cause for the irregularity of the teeth. Largely built, big-headed emigrants from Germany, with large jaws and large teeth, marrying slender, small-headed and small-jawed Italians, cannot expect regularity of the teeth, of their progeny. But by far the most prevalent cause, and the easiest to overcome, is irregularity produced during dentition. Lest we make our article too long, let us confine ourselves to this branch of our subject.

1st. As a rule, the permanent teeth come under the temporary; and, by their pressure during growth, they cause dissolution of the roots, of the temporary teeth, so that they almost or quite "fall out." But sometimes a permanent tooth comes in at the side of the deciduous tooth, and then the root of the latter may not be dissolved, or only partially. As the temporary tooth remains in the place that should be occupied by its successor, the permanent tooth continues its growth in its abnormal position. Irregularity is the result. As soon as this abnormality in the position of the incoming permanent tooth appeared, the temporary tooth should have been removed. Sometimes even the spicula of a root of a temporary root, which the permanent tooth is moving into place, will cause the incoming tooth to take an abnormal position.

2d. But, often, the deciduous teeth are prematurely extracted. Irregularity of the temporary teeth is very infrequent; but their decay, and their crowded condition caused by nature using them as a power to expand the jaw, is often made an excuse for their removal, the very worst thing that could be done. Even if they cause pain, irritation, inflammation, and general systemic disturbance, their removal should be a last resort; for the activity causing this temporary trouble is a wise provision of nature to produce growth of surrounding tissue. The child's habit of grinding the teeth, wanting to bite hard substances, and the pleasure felt in having them rubbed, show that nature is normally at work. Even if a temporary tooth is carious to the pulp, it should be saved, if possible, till the incoming tooth is ready to take its place, unless before this the coming tooth presents in an abnormal position.

3d. A frequent cause of irregularity is the removal of a temporary tooth to give place to the first permanent molar. Its incoming is often the cause of irritation, if not actual pain. "Besides this," the parent persists, "there is really no room for it, and the gum is swelled clear to the back of the jaw. Some tooth must be sacrificed to give it room." If the dentist is as ignorant as the parent, or yields his own better judgment to these importunities, and a temporary molar is extracted ("for you can see it is already decayed"), then the permanent molar, in its growth toward the surface, and after it appears, moves forward and finally takes the place made vacant by the removal of the temporary tooth. "There, did I not tell you so?" ejaculates the triumphant parent. "Now, you see, the teeth are all regular." But how is it when the two bicuspid appear? for there is room only for one. The temporary teeth should all have been left; then the very irritation the parent com-

plained of would have caused a normal elongation and enlargement of the jaw, that in proper time would have given ample room for the permanent molar behind the temporary set.

4th. There are dentists who are as much at fault in causing irregularity of the teeth as parents. For instance, they see glaring irregularity in the permanent lower central incisors, as they crowd their way into place behind the deciduous central incisors. "And there is certainly no room for them; even Nature fails to make the required space in the place they should occupy." The result is alarm lest there be permanent irregularity. This fear is increased as the permanent laterals try to take their proper places; for these, as the centrals, are so much wider than the temporary that "it is impossible for them to come into their proper place without removing at least one temporary incisor." "Why, in a former case," exclaims a young dentist, "I allowed the temporary incisors to remain six months after the permanent ones appeared behind the temporary, and in spite of all I could do, this irregularity continued till I just removed all four temporary incisors and one of the cuspids, to give them room. Then they came forward and took their proper position." If you had been a little more patient they would have given themselves room. These permanent incisors do not grow in size as they crowd themselves into place; but, as with all the teeth, they are full-sized from the first; and the jaw does not expand suddenly to provide space for these larger teeth, but slowly for months, yet it is sure to come; then room will be ample, whereas, the extraction of a temporary tooth will produce permanent irregularity. It is the same with the exchange of the temporary for the permanent upper incisors. And so it is with all the temporary teeth.

We have a wonderful lesson here for our boys and girls, and for some of us older. The god of nature has decreed that, like the growth of these teeth, we must all *crowd* into position. If our indulgent parent, or rich uncle, tries to make our way easy by prematurely providing us room, it is almost sure to do us more harm than good.

### Will you be a Success or a Failure in your Profession?\*

DR. E. T. BARR, OF BOWLING GREEN, KY.

**M**OTHER Nature has many wonderful fairy tales with which to beguile her children. There are sleeping beauties innumerable awaiting the awakening kiss, and ready to be led forth by the fortunate prince. Locked in deep slumbers within the palace walls, surrounded by the primeval forest, lies the secret. The whitening bones of many who have hunted in the neighborhood, or who have been pierced through with many thorns in the effort to penetrate the thicket, attest to their efforts and how near they came to success. But one bolder than the rest, or perchance by the accidental discovery of an opening, has pressed forward and awakened the princess and leads her forth to the world, claiming her as his own.

But it is not given to every man to be a discoverer and revolutionizer, like Agassiz, Goodyear, Edison, Pasteur, Koller, etc. For the one acorn that produces a mighty oak, there are thousands that seem to be created for no other purpose than to be mast for swine. And it is to the many, who will not achieve this great eminence, that I address my remarks, and of whom I would ask the question: "Will you be a success or a failure in your profession?"

Presupposing you have been educated for the profession of dentistry, and that your diploma entitles you to be considered equipt in all points for its practice, there are yet many things which will determine your success or failure. To be a success at anything, one must show the world that there is something in it. There must be enthusiasm and devotion to that one thing. One must not be content with his knowledge, but must be constantly increasing it, keep abreast with the times and learn the latest discoveries and inventions. It is certainly bad taste to introduce your profession into the social circle, but there are abundant opportunities in your

\* Read before the Tennessee Dental Association.

own office of convincing the public of your knowledge. Not the gratuitous lecture and advice, which are annoying, but when asked questions (and questions are asked by many who are anxious for information) answer and convince your interrogator that you are master of your situation. Never neglect such an opportunity, where there is a possibility of benefiting humanity. Remember that the professions are the storehouses which should distribute food to the multitude.

In no other profession perhaps does the personality of the man enter so largely into his estimation by the public, as in the profession of dentistry. If one needs the services of a lawyer, physician, minister, etc., the appearance of the man makes very little difference, if it be known that he is skilled in his profession and can manage the case successfully. But the personal contact of the dentist is a different thing. In addition to his having the manners and morals of a true gentleman, he should be scrupulously neat in person, and all the appointments of his office must show the same characteristic. With women especially does this have weight. For no refined woman can tolerate dirty finger-nails, soiled napkins, and instruments, which show a lack of careful attention. Ventilation and heating are also important considerations. A visit to the dentist is dreaded by most people, and there is no excuse for adding other discomforts to the ills, that of necessity await them. The odors of iodoform, ether, carbolic acid, etc., are all unpleasant and unhealthful, producing in many people a faintness which is detrimental, when strength is needed to sustain the strain to which their nervous system is subjected while in the dentist's chair. This is speaking from the standpoint of the public, but it is also of great importance to the dentist himself. Physical vigor is certainly essential to good work, and no person can hope to retain health, working in constrained positions, with lungs cramped and back bent, in an impure and overheated atmosphere. Exercise out of office hours, and in fresh air, is of great importance; for this reason it is better not to have the office connected with the residence, as the walk in the air is then a necessity.

The successful dentist must be a lineal descendant of Job, for truly in him "patience must have its perfect work." He must be a judge of character and know how to influence his patient. Firmness is an essential of his character, but he must be sympathetic. He must be able to divert the mind of his patient and at the same time keep his own on his work. If he is able to do this, it will be of great value to him, since it is a well-known fact that thinking about any painful ordeal through which one has to pass, renders it much worse, and people very frequently patronize with no other reason than this: "He is such a pleasant man."

In dentistry, as in everything else, granting that both have other advantages equal, it is the man who has tact that succeeds, and the one who lacks it that fails.

Impressions of the mouth for a full or partial denture should always be taken in plaster. Where difficulties arise, as they often do in partial cases, Dr. Angles' plan is unique in its simplicity, viz.: Oil the impression cup before pouring the plaster, to facilitate the removal of the former from the latter; then divide the outer portion of the impression into three pieces, when the whole can be easily removed and replaced in the cup. After obtaining a good impression of an upper, which must include a part of the soft palate and condyles of the jaw, that portion of the plaster indicating the location of the hard palate—unless of a soft, spongy membrane or tissue over the hard palate—should be trimmed to relieve pressure at that point. Knock the impression out of the cup, trim off all surplus plaster before pouring the plaster for the model.

Incase the plaster impression, after its proper preparation in a sheet of lead two and one-half inches wide and about 24-gauge, the object of this is obvious. The resulting model should be scraped to the depth of a line on that part representing the soft palate, then with a proper articulation of the teeth, satisfaction for the patient and dentist usually ensues.—Dr. A. W. McCANDLESS in *Review*.

## How a Young Dentist May Get a Good Practice.

DR. E. N. FRANCIS, UVULA, TEXAS.

“A GOOD-appearing, polite and moral young man of twenty five years of age, a D.D.S., with a good outfit and \$100 cash, a very good workman and honest, wishes to be a credit to the profession and make money in a city where there is the usual amount of competition. Teeth are advertised by other dentists at five and eight dollars a set, and fillings in proportion; also, there are several good old practitioners doing the work of the better class of people. Just how is the best way to get a practice under these circumstances? Please give particulars enough to be a guide to young men just starting in large towns or cities. D.D.S.”

My experience has been this :—

In large cities it requires from two to three years to pay expenses, unless family, relative, acquaintance or social influences favor a young practitioner. A neat, well-furnished office, well situated, favors success, and the patronage of paying patients. Relatives, friends and “good records” are useful stepping-stones in a city where a young man was raised; and with good work, fair prices, and not too much competition, he will often do well in a few months.

With ready money a paying practice can often be purchased at a low figure, but with the amount mentioned above, a safe start cannot be made even in a small place without some credit and great economy.

Keep prices up; it takes money to advertise cheap work; don't make five or eight-dollar teeth, or depend on patronage gotten by doing any work below reasonable prices. Good prices pay in the long run, and command respect and confidence. The road to fame is not often reached by the two-for-a-cent kind.

Here is an opportunity for some one to write an article on, *Are our Dental Colleges Graduating too many Students, and is the Supply Greater than the Demand?* Let us hear from the readers of the ITEMS.

### Capping Exposed Pulp.

FOR several years I have been using a medicated chloro gutta-percha to cap exposed nerves in teeth, and with satisfaction to myself and patrons.

To one half ounce of chloroform add pieces of gutta-percha (such as used for base-plates) till the solution is about the consistency of thick cream; add five drops carbolic acid, ten drops spirits of camphor, and five drops oil of cloves. After applying the rubber dam and excavating properly, dip a small instrument in the solution and apply to the point of exposure, and be sure to flow it over the point exposed without making any pressure. After it is dry, cut a small piece of letter paper and apply a little of the solution to one side and gently apply over the first application. As soon as that is dry, apply another piece in like manner. As soon as there is thickness enough over the point exposed to resist slight pressure it is ready to fill with either amalgam or cement. If it is to be filled with amalgam mix enough amalgam quite soft to half fill the cavity, and insert with as little pressure as possible; and when it commences to get hard, mix some stiffer to finish filling the cavity. I often apply a small metal cap filled with the solution; in fact, I like it much better, if I desire to fill the cavity with gold. The metal cap should have a small opening at the top for the escape of the excess when the cap is gently pressed to the tooth over the point of exposure. Before introducing the gold filling be sure the chloro percha is dry, for it is not well to confine chloroform over the pulp. The solution firmly adheres to the tissues, if the cavity has been well dried before its introduction, and its physiological action is good.

[This communication comes without signature, but the mode of pulp capping recommended will be found good. My plan has been simply to place a small amount on a little paper cap and carry it to the exposed surface of the pulp; then partly fill the cavity with oxyphosphate of a creamy consistency. This soon hardens, when the cavity is ready for alloy. If gold is to be used, it is better to entirely fill the cavity with oxyphosphate and leave it for a month or two to prevent a shock to the nerve by the insertion of the gold. Then cut out sufficient to cap with gold. Often, however, this capping of gold may be done immediately, especially if by hand pressure.—ED. ITEMS.]

## Facts About Aluminum.

DR. W. E. DRISCOLL, MANATEE, FLA.

IN the ITEMS OF INTEREST for September is an article from *The Inventive Age* on "Aluminum," which would be "important if true." I quote "Mr. Richards, in his valuable work on Aluminum, published in 1887, said: 'No one knows how to cast it.'" I am surprised to read such a statement being made in a "valuable" work in 1887. Seventeen years previous to that date a large number of Indiana dentists made cast aluminum dental plates for two years or more, by two entirely different processes to overcome the impediment to casting due to its lightness. Both processes were brought before the Indiana State Dental Association at its meeting in 1870, at Indianapolis. One, by Dr. J. W. Hollingsworth, was to force the metal to place by a "plunger," which injected the metal into spaces of any desired thinness. He made perfect copies of extremely thin leaves of trees and similar tests. Dr. J. U. L. Feemster presented a method of casting aluminum under pressure of hydrogen gas. In this way I cast all the upper plates needed in my practice for nearly a year.

Instead of the aluminum being so incorruptible as the article from *The Inventive Age* asserts, there were found a certain proportion of cases in which the secretions of the mouth did corrode and disintegrate the cast plates. However, the opinion commonly expressed by dentists of my acquaintance at that time was that rolled plates would be much more impervious to the secretions of the mouth. Besides the oxidizing of the metal in some mouths, the platina pins in the teeth would break off at the point of insertion in the aluminum, and appeared to have gradually wasted away by galvanic action, as they were at the point of separation reduced to one-third or one-fourth their original size. There are other obvious errors in the article, but I leave it to others to sift the wheat from the chaff.

I would be glad if the facts about aluminum were set before the dental profession, as later improvements in purifying the metal has adapted it to a wider range of uses. The foil made twenty years ago did not seem to have any of the attributes of a suitable material for filling teeth. It was harsh, less malleable than tin or gold, and not at all cohesive when packed in a cavity. Doctor, give us more about aluminum, but for one I prefer facts to the hit or miss style of *The Inventive Age*.

W. E. DRISCOLL.

[The article from *The Inventive Age*, referred to by Dr. Driscoll, was reviewed before we published it in the ITEMS by Dr. C. C. Carroll, President of the Carroll Aluminum Manufacturing Company, who pronounced its statements truthful. We are glad to hear so much of the history of aluminum in dental practice. Let us have more.—ED. ITEMS.]

**Filling Material.**—No filling material with which I am acquainted can be considered absolutely permanent; apart from its being released by recurring decay, or forcibly dislodged, each material has its own peculiar weak points. Gold, however carefully impacted, may disintegrate, either from unappreciated defective manipulation or the peculiar forces brought to bear on the finished filling; the cements undergo chemical solution, gutta-percha, and its allies, mechanical abrasion, and copper amalgam also has its own peculiar defective failings. How far these may be due to unappreciated, undiscovered, and possibly avoidable cases, or how far they are inherent in the material itself, I am unable at this time to determine. I have noted first a gradual wearing away, the filling after a time presenting very much the appearance of a gutta-percha or cement filling partly worn out. This is not due to attrition, nor to any want of hardness in the filling, but is, I think, a chemical solution. It has been noted that those copper amalgam fillings that quickly turn black, are not liable to this change, but only those which retain their color or are discolored but slightly. This accords with my own experience. It has been suggested that this may form a reliable rule to determine whether copper amalgam is suited to the mouth or not. If it quickly turns black, it is safe to use it, and it will likely prove in that mouth a reliable filling. If it retains its color, its use is contra-indicated. This is probably a fairly safe rule; it is not, however, infallible.—*Exchange*.



## Dr. Younger in Europe.

Implantation at the National Dental Hospital—reported by the *Dental Record* of August.

DR. YOUNGER, of San Francisco, who was the first to perform the operation of implantation, was asked to demonstrate his method during his recent stay in London. Accordingly, on the 18th ult., some twenty gentlemen were present, by invitation, at the National Dental Hospital. Dr. Younger first gave a short account of the operation, explaining, by means of a diagram, the method of obtaining the necessary flaps of gum. He does not now think it necessary to have the scion tooth in a fresh state, but holds that the dried remains of the pericementum are important in securing an attachment in the new socket, and that there results a vital union. The patient, a young lady, then took her place in the chair to have a tooth implanted in the situation of the second left upper bicuspid, which had been lost some years. A local anesthetic mixture containing cocaine was injected, the needle being pushed in deeply. The operator expressed his regret that the composition of this mixture is at present a trade secret, but spoke favorably of his experience with it. The new socket is made by instruments which combine the reamer and the trephine, and a sliding spring enables one to gauge the length of the root to be inserted, so that the socket shall not be made too deep. The scion tooth was "one without a history" with a not very long root, one side of which was bare, but the other was said to have pericementum on it. The pulp canal had been cleared out and filled from the crown just before, and the tooth was laid in bichloride of mercury solution until required. It was tried in the new socket two or three times until the latter was the right size and length, and then pushed forcibly home, no ligature or splint being used. The operation was skilfully, neatly, and quietly performed, and the patient on being asked afterward as to pain said that "it did not hurt much," and that the boring for the socket was not as bad as having a tooth extracted.

Dr. Younger had just received from Berlin a favorable report from a patient on whom he had operated last February. This is the most extensive case he has yet undertaken, and as it has not yet been published and is of an unusual character, it may be briefly mentioned. A young lady, aged twenty, with mal-development of the upper jaw and a well-marked underhung bite, had associated with these conditions a deficiency of teeth. The two centrals were present in the upper jaw, but much separated; there were some teeth in the bicuspid region, but no molars. This patient had twelve teeth implanted within six weeks, including two centrals in the lower. In the upper jaw a modification was practised. Instead of distinct sockets in the bone a series of deep grooves was made in the front, and the teeth were practically inserted between the jaw and the gum. In this way the "bite" was so rectified that it is now normal, and the patient's appearance is greatly improved. The case will be shown during the Congress in Berlin.

Listerine is growing more and more in favor. My experience with it is very gratifying. As a wash in the treatment of pulpless teeth, during the process of removing the *débris* from the canal, it is unsurpassed; as a mouth-wash during the removal of tartar, it is not only gratifying to the patient, but is also an excellent application for the gums. Its most useful and particular sphere, however, seems to be as a general mouth-wash where the teeth are soft, with white rings appearing at the cervical margins. These are the cases that above all others seem most discouraging to the operator; being apparently ready to soften on all surfaces and break down; where the only real remedy to stop decay is apparently the application of a gold crown to keep the oral fluids from the teeth and thus preserve them. Here listerine seems to be the very thing we need. Marked improvement has been observed in such cases after a six-months' course of treatment, and in a year all signs of softening have disappeared and the teeth appear strong and healthy. It is used in the strength of a teaspoonful to a half-glass of water, night and morning.—*Dr. Luckey.*

## Text of Decision Regarding Dental Law of the State of New Hampshire.

ROCKINGHAM, N. H., June, 1889.

**STATE VS. HINMAN.**—A statute which requires that certain persons, before practicing dentistry, shall procure a license, and exempts others of the same class and profession, under similar circumstances, cannot be sustained under the Constitution of this State or of the United States.

CLARK, J.: This is an indictment under chapter 132, general laws, for practicing dentistry without a dental degree or license. The respondent demurred on the ground that the statute is unconstitutional.

The object of the statute, on which the indictment is founded, is to secure the possession of the requisite skill and learning by practitioners of medicine, surgery and dentistry. The possession of such special qualifications as to knowledge and skill is so essential to the protection of the lives, health and comfort of the people of the State, that it cannot be doubted that it is within the power of the legislature to secure it by the enactment of such reasonable conditions as are calculated to exclude from practice those unfitted therefor. *Hewitt vs. Charier*, 16 Pick., 353; *State vs. State Med. Ex. Board*, 32 Minn., 324; *Eastman vs. The State*, 109 Ind., 278.

Is the statute repugnant to the Federal or State Constitution in any of its provisions? It is contended that it is in violation of section two of article four of the Constitution of the United States, and of section one of the fourteenth amendment to the Constitution, because it discriminates against persons engaged in the same business or profession, and denies to them the equal protection of the laws; and that it is in violation of article two, part one, of the State Constitution, which declares that all men have the natural, essential and inherent right of acquiring and possessing property and seeking and obtaining happiness. Section three of chapter 132, general laws, on which the indictment is founded, provides that "It shall not be lawful for any person who is not duly authorized to practice medicine or surgery, to practice dentistry, unless such person has received a dental degree from some college, university or medical school authorized to confer the same, or shall have obtained a license from the New Hampshire Dental Society." Section six provides that "Each person receiving a license on examination shall pay for the use of the society granting the same, the sum of five dollars; on diploma, one dollar." Section eight declares that "The provisions of the preceding sections shall not apply to persons who have resided and practiced their profession in the town or city of their present residence during all the time since January 1, 1875, nor to physicians residing out of the State when called into the State for consultation with duly licensed physicians, or to attend on patients in the regular course of business.

When the power of the legislature to impose restrictions on the exercise of certain trades and professions for the protection of the public is unquestioned, it must be exercised in conformity with the constitutional requirement that such restrictions must operate equally on all persons pursuing the same business or profession under the same circumstances. The constitutionality of a statute cannot be sustained which selects particular individuals from a class or locality, and subjects them to peculiar rules, or imposes on them special obligations or burdens from which others in the same locality or class are exempt. *Cooley, Const. Limitations*, 391. The imposition of special restrictions or burdens, or the granting of special privileges to persons engaged in the same business, under the same circumstances, is in contravention of the equal right which all can claim in the enforcement of the laws and in the enjoyment of liberty and the right of acquiring and possessing property.

If the statute had declared that its provisions should not apply to persons practicing their profession in the city of Concord, such an arbitrary discrimination would be clearly repugnant to the principle of constitutional equality. The exemption of

all physicians, surgeons and dentists residing and practicing their profession in Concord from the burden of procuring and paying for a license, and the subjection of all other persons practicing the same profession elsewhere in the State to the expense of purchasing a license, would be a palpable violation of constitutional rights. The exemption of the statute of persons who have resided and practiced their profession in the town or city of their present residence during all the time since January 1, 1875, or during all the time from January 1, 1875, to January 1, 1879, is no less in conflict with constitutional provisions. By an arbitrary test, having no reference to skill, learning or fitness for the practice of the profession, certain persons are exempted from the payment of a license fee to which others of equal, and perhaps superior, acquirements and experience are subjected. It is a discrimination founded solely on the accidental circumstances of residence or of a change of residence, and falls within the prohibition of the constitution.

The village of Penacook is partly within the limits of the city of Concord and partly in the town of Boscawen. Suppose that on January 1, 1875, two persons, neither of whom had received a dental degree, were residing and practicing dentistry in that part of the village of Penacook within the limits of Concord. They continued in practice there till January 1, 1878, when both changed their place of residence, one removing a distance of six miles to the city of Concord, and the other removing a distance of a few rods to the Boscawen portion of the village of Penacook, and both have continued the practice of their profession in their respective places of residence ever since. Under the provisions of the statute the dentist who had removed his residence six miles is not required to procure a license, while the one who has removed a distance of a few rods is compelled to submit to an examination and pay a license fee of five dollars to enable him to continue the practice of his profession, because he changed his residence from Concord to Boscawen.

The statute also discriminates against citizens of other States. It does not apply to persons residing and practicing their profession in the same town or city in this State from January 1, 1875, to January 1, 1879, whereas persons who have resided and practiced their profession continuously since January 1, 1875, in the same town or city in another State, are required on removing to this State to procure a license to practice their profession.

The constitutional objection to the statute is that it imposes the burden of a license fee on certain persons, and exempts others of the same class and profession under similar circumstances and conditions. *Soon Hing vs. Crowley*, 113 U. S., 703; *Gick Wo vs. Hopkins*, 118 U. S., 356.

Demurrer sustained.

Justice Blodgett did not sit; the others concurred. Calvin Page appeared for the defendant, and Samuel W. Emery, Solicitor, for the State.

**Dental Colleges and State Boards.**—There seems to be a real inconsistency in a State granting a charter to a dental college, embodying the power to graduate students and confer the degree of D.D.S., and then, in the very face of this act, pass another authorizing the appointment of a dental examining board by the Governor or a District Judge, whose duty it is to pass on the qualification of all who desire to practice dentistry. Let us look at this through the dental colleges which have just closed very flatteringly prosperous sessions, conferring the degree of D.D.S. on a number of young men with all the rights and privileges to—do what? Go before a dental examining board to learn whether they are competent to practice dentistry? And this board may be composed wholly or in part of men who never saw inside of a college, and who are as innocent of the great fundamental principles which underlie the science of medicine as ignorance well can be, and have been appointed to office on account of political preferment rather than scientific attainments. Somebody is stultified, either the legislature that makes the laws or the colleges that grant these diplomas.—DR. J. C. STORV.

## Irregularities in the Arrangement of the Permanent Teeth.

DR. E. S. TALBOT.

AT the age of six years, the temporary teeth and the first permanent molars are in their places in the jaw. By removing the outer plate of bone in the jaw, it will be seen that the germs of the permanent teeth are in their crypts. While the teeth grow independently of the alveolar processes, the processes depend, to a great degree, on the teeth for development. With these various conditions existing at the same time, it is not surprising that the teeth are erupted out of normal position.

The alveolar processes are, to an extent, independent of the jaws. The parts below the mental foramen on the lower jaw, and above the palate on the upper jaw, are hard and dense, and are for the attachment of muscles. The alveolar processes, composed of soft and yielding tissue, are expressly for the purpose of the formation of the teeth while in the crypts, and for their retention after they have erupted. When the teeth are removed, the processes are absorbed, and nothing remains in old age but the dense bone.

In intra-uterine life, while the teeth are forming, the alveolar processes cover and protect the crypts in which the germs are located, and, as they grow and force their way through the processes, absorption takes place and most of the bone vanishes. After they have passed through, deposition of bone again takes place for the purpose of holding them firmly in place. Again, these teeth are shed and bone is absorbed to admit the second set of teeth, after which new material is deposited for their retention. This is the case under all conditions of their eruption, whether regular or irregular. From the time the first teeth appear till the second set are firmly fixed in position, the alveolar process has changed three times; consequently, while the teeth grow and develop independently of the alveolar process, the processes are, to an extent, dependent on the teeth for their development, position, and shape.

The permanent teeth, taking the place of the temporary, and likely to be deflected in any direction by the slightest obstruction or want of space, are, indeed, "creatures of circumstances."

Mr. Tomes says: "The point on which it is impossible to insist too strongly is that the teeth, when they are erupted, do not come down and take their places in a bone already prepared for them; on the contrary, that which is there to start with is absorbed, and the bone in which they are ultimately implanted is built up around them, whatever position they assume subsequent to their eruption." The size of the jaw does not indicate the size of the alveolar process. The teeth may erupt toward the inner border of the jaw, when the process will build up about them, and will be smaller than the jaw; while the teeth may be directed outward, and, as a result, the process will be larger than the jaw.

In whatever position the teeth make their appearance in the jaw, the cheeks and lips add materially in directing their position externally, and the tongue internally. The order in which they are erupted may have as much to do with the causation of irregularities as any one thing. This is particularly noticeable when the bicuspid and lateral incisors come down in close proximity, and the cuspids are left outside the arch, or when the centrals, the laterals and cuspids are in place, and some of the bicuspid, which have been retarded in their eruption, are forced abnormally inward. Lateral incisors and wisdom teeth are rather frequently out of position, since their tardy development allows the other teeth to occupy the space.

It will be observed that the crowns of the permanent centrals, on the lower jaw, are situated below and posterior to the roots of the temporary teeth. The permanent crowns, being larger and requiring more space, naturally crowd outward and conflict with the roots of the temporary teeth, thus producing absorption of the entire root. The roots of the temporary teeth may be all removed by nature in this same way. If the crowns of the permanent teeth do not come in contact with the roots of the temporary teeth, or if from any cause the pulps of the deciduous teeth are

destroyed, absorption does not occur to any extent, and the roots are not removed. The permanent teeth are then deflected either into the mouth or out toward the labial or buccal surfaces, or they remain imbedded in the jaws.

When temporary teeth are extracted on account of decay, or to make room for the permanent teeth, the cavity occasioned by such extraction fills up with osseous deposit, which deflects the permanent teeth outward or inward, since the tooth cannot penetrate it.—*Irregularities of the Teeth.*

### Peroxide of Hydrogen.

ROBERT T. MORRIS, M.D., OF NEW YORK.

**S**TOP suppuration! That is the duty that is imposed on us when we fail to prevent suppuration.

As the ferret hunts the rat, so does peroxide of hydrogen follow pus to its narrowest hiding place, and the pyogenic and other micro-organisms are as dead as the rat that the ferret catches, when the peroxide is through with them. Peroxide of hydrogen  $H_2O_2$  in the strong 15-volume solution is almost as harmless as water, and yet, according to the testimony of Gifford, it kills anthrax spores in a few minutes.

For preventing suppuration we have bichloride of mercury, hydronaphthol, carbolic acid, and many other antiseptics, but for stopping it abruptly and for sterilizing a suppurating wound we have only one antiseptic that is generally efficient, so far as I know, and that is the strong peroxide of hydrogen. Therefore I have qualified it, not as "good," not as "useful," but as "necessary."

In abscess of the brain, where we could not thoroughly wash the pus out of tortuous canals without injuring the tissues, the  $H_2O_2$ , injected at a superficial point, will follow the pus, and throw it out, too, in a foaming mixture. It is best to inject a small quantity, wait until foaming ceases, and repeat injections until the last one fails to bubble. Then we know that the pus cavity is chemically clean, as far as live microbes are concerned.

In appendicitis, we can open the abscess, inject peroxide of hydrogen, and so thoroughly sterilize the pus cavity that we need not fear infection of the general peritoneal cavity if we wish to separate intestinal adhesions and remove the appendix vermiformis. Many a patient, who is now dead, could have been saved if peroxide of hydrogen had been thus used when he had appendicitis.

The single means at our disposal allow us to open the most extensive psoas abscess without dread of septic infection following.

In some cases of purulent conjunctivitis we can build a little wall of wax about the eye, destroy all pus with peroxide of hydrogen and cut the suppuration short. Give the patient ether if the  $H_2O_2$  causes too much smarting. It is only in the eye, in the nose and in the urethra that peroxide of hydrogen will need to be preceded by cocaine (or ether) for the purpose of quieting the smarting, for it is elsewhere almost as bland as water.

It is possible to open a large abscess of the breast, wash it out with  $H_2O_2$ , and have recovery ensue under one antiseptic dressing, without the formation of another drop of pus.

Where cellular tissues are breaking down, and in old sinuses, we are obliged to make repeated applications of the  $H_2O_2$  for many days, and in such cases I usually follow it with balsam of Peru, for balsam of Peru, either in fluid form or used with sterilized oakum, is a most prompt encourager of granulation.

If we apply  $H_2O_2$  on a probang to diphtheritic membranes at intervals of a few moments, they swell up like whipped cream and come away easily, leaving a clean surface. The fluid can be snuffed up into the nose and will render a fetid ozena odorless.

It is unnecessary for me to speak of further indications for its use, because wherever there is pus we should use peroxide of hydrogen. We are all familiar with the old law, "*Ubi pus, ibi evacua*," and I would change it to read, "*Ubi pus, ibi evacua*,"

*ibi hydrogenum peroxidum infunde.*" That is the rule. The exceptions which prove the rule are easily appreciated when we have them to deal with.

Peroxide of hydrogen is an unstable compound, and becomes weaker as oxygen is given off, but Marchand's 15 volume solution will retain active germicidal powers for many months, if kept tightly corked, in a cold place. The price of this manufacturer's preparation is about 75 cents per pound, and it can be obtained from any large drug house in this country. When using the  $H_2O_2$  it should not be allowed to come in contact with metals if we wish to preserve its strength, as oxygen is then given off too rapidly.

$H_2O_2$  must be used with caution about the hair if the color of the hair is a matter of importance to the patient, for this drug, under an alias, is the golden hair bleach of the *nymph's* *dispare*, and a dark-haired man with an canary-colored mustache is a stirring object.—*Journal of the American Medical Association.*

### What shall be the Test of Dental Students?

From the Address of the President of the American Dental Association.

THE first subject presented for consideration was the formulation of a plan to make State dental laws uniform, a subject in which the rights and best interests of the public, the profession, the colleges, and the newly graduated student were all involved. In pursuing the theme, the speaker divided the present State laws into four classes: (1) those which demand that both graduates and non-graduates shall be examined by State boards before admission to practice; (2) those recognizing the diplomas of reputable colleges; (3) those demanding examinations, but allowing this favor to graduates only; (4) those demanding examinations of all dentists, whether graduates or not, with exceptional clauses in favor of the medical degree.

The first of these would appear at first glance without serious objection: it seems fair to judge an applicant by what he knows. But is it fair to the college man or to the colleges? Would not the average man prefer to prepare himself at home and save the expense of the college training, as in the end he would have to be examined by the State board? Again, does not this enforced examination of college graduates show to the whole world an implied distrust and want of confidence in the schools, and is it not calculated in every way to injure our institutions?

The second class evidently regard the college training as imperatively necessary, and do not even suppose it possible that practitioners can be qualified in the office of a preceptor.

The laws which demand examinations of all graduates but exclude others from the privilege, aid and encourage the colleges by conceding that the graduate alone is competent to practice, but they throw a wet blanket on them by publishing to the world that there is not a single college in the United States above suspicion. It does seem proper that a student who has earned his degree in an acceptable manner should be exempted from further examinations. But under these laws there is no respite for him, and if he, for any reason, emigrates to another State from that in which he has passed an examination, the same ordeal of torture is inflicted. The answer to this would be that unless the college graduates were tested by some such examinations, the colleges would be under no restraint and might make improper graduations, and there is reason in it. But was a State board any more immaculate in its decisions, any less human, or more competent than the faculties?

The intelligence of this association ought to be able to formulate a plan which will insure to the public, to the profession, and to the colleges and their graduates, justice and reasonable satisfaction, so that it can be announced to the world that the colleges deserve the confidence of all. Suppose the State board in each State where dental colleges exist were required, conjointly with the respective faculties, to examine thoroughly all candidates for graduation, both theoretically and practically, and their president or secretary to sign with the faculty the diplomas of all such as

passed, such a diploma might be accepted in every State. The public and the profession should be satisfied, and the colleges would rejoice at being relieved of the unpleasant duty of turning down incompetent men. The students would be fairly and thoroughly examined, and ought to be satisfied, as the examination would be the final test. It would be well, if this suggestion was carried out, that members of the State examining board be chosen from the ranks of the profession outside of the college faculties.

If this association would properly consider these questions, aided, as it no doubt would be, by the National Association of Dental Examiners, there would be in time uniform, acceptable, and proper laws on the subject.—*Cosmos*.

### Admitting Poor Young Men to Our Colleges.

**EDITOR ITEMS:**—Please allow me a few lines in your valuable journal, "whose monthly visits I await with eager expectancy," to say a word against excluding "poor" young men from our colleges, as recommended by Dr. A. Dent, D.D.S., of New York, in July number of the *Dental Advertiser*. I think his assertion that the career of poor young men in our profession is generally a failure, is false.

The doctor starts out something as follows: "The career of many dental students is finished at the college. They have smashed almost everything they could lay their hands on—turned up the matting, broken panes of glass, pounded their fellow-students, and behaved themselves in the coarsest manner describable, hooted at the professors, and made fools of themselves generally with cigarets, beer, and dime museums." Then the doctor goes on to state that as a student's life is spent, so will his professional life be spent, and be finally a failure.

But I would like to ask the doctor, Who is it that frequents the dime museums, and on his way home stops to leave a few dollars with the saloonist, drinking, shuffling cards, and playing only the one more game of billiards, reaching his couch in anything but a fit condition to retire, let alone looking over notes of the day's lectures, or studying carefully the books which he must necessarily understand to become proficient? I wish I could say such studiousness is also necessary to obtain the degree of D.D.S.

Now, is it true that the students who have a hard time to obtain the necessities of life, or, perhaps, are acquiring their professional education on borrowed money, can be classed with those he has described?

Ask any of our college faculties, Who are the most faithful, the poor students, or those receiving their \$25 per week?

The poor students are always most attentive to lectures, and are always found at their rooms of evenings, carefully preparing themselves for their future success; and when they have honestly earned their diplomas, and step out on the broad field of their profession, their faces are not marked by the crimson hue found on the faces of those who have spent two or three years indulging in those habits so common among young men with plenty of money to spend; neither do they bunglingly perform their operations with shaky hand and empty head.

And at middle age you see them leaving their once rich dissipating classmates on the wayside, to end their professional careers in obscurity, struggling hardest during his last days, while he, "the poor young man" you would not allow to enter the profession, moves on to wealth and honor.

I do not wish to have it understood that this picture I have drawn is without its exceptions, as some of our wealthy young men apply their money and time in the right direction; consequently, owing to their financial advantages, become the brightest stars in our profession.

When our poor young men are excluded from professional life, you will find many of our most important chairs empty without capable men to fill the vacancies, and many a thriving dental office vacant.

Richwood, O.

C. A. ROUAND, D.D.S.

## Shall Poor Dental Students be Encouraged?

DR. W. MITCHELL, LONDON, ENG.

**I**N your issue of September, page 402, appears an article headed "What Next?" Unless the dental profession is composed principally of prophets, the conundrum will prove a poser; for after reading it carefully I can only conclude it is the vaporing of a peculiarly morbid imagination. The ground is taken that poor students should be debarred from taking professional degrees. Do poor or wealthy students prove the greatest credit to their preceptors? When at college, which class causes the greatest anxiety to their instructors? From which do we get the most thorough work and the best and most original theses? After graduating, from which do we get the back-bone of our profession? The history of our profession is the best reply. The men who, having the genius and the courage of their convictions to fight their way to honorable positions, have ever been those whose early days have been a struggle with poverty and inopportune circumstances, the contending with which has done much to develop their character, self-reliance and independence, and command the respect that must ever be the reward of trials overcome and difficulties surmounted. Our profession is in an enviable position. Quite within the memory of men now living the magical metamorphosis has taken place that has brought it to its present fair proportions from the uncouth, hybrid condition in which the middle part of the present century found it.

The men who have done the most in all times, and in none more than in the present century, to develop nature's resources in science and art, in commerce and the various industries, were the honest poor, who later on attained to the highest positions, and were accorded the highest recognition that potentates and powers could confer. Franklin, Stephenson and Tyndall, Lincoln and Garfield, are but a few in the grand galaxy of stars that will ever prove fixt in the firmament of the world's history to guide the poor young man who would follow in their footsteps when his track is obscured.

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**E**DITOR ITEMS.—May a poor young man beg for little space in your journal as a medium of defence against Dr. Dent's article in September ITEMS, entitled "What Next?" To this class of young men, Dr. Dent, among other things, says:

"You ought not to think of such a thing as dentistry. '*You are poor.*' You do not belong to the 'privileged class of persons;' your 'poverty brings the profession discredit.' You even don't have 'capital to maintain appearances and self-respect.' 'There are moral grounds' (?) which say to you, stay out."

What advice! May I say, "deliver me," if what Dr. Dent says, is the voice of the profession. This, of course, I cannot make myself believe. Observation teaches us that many of the best men in the professions were poor boys, and through their own effort, pluck and grit attained success, honor and wealth in their vocation. The poor young man is generally honest with what little he has, and in nine cases out of ten does not belong to the class that have their "beer, cigars, horses, poker, base ball, brag, laziness," etc. Furthermore, were the qualifications for the degree of D.D.S. fixt at Dr. Dent's ideal standard, viz.: "College fee per year doubled," "and money enough to establish yourself in practice and live as a professional man should live," methinks the profession would soon be added to the already long list of monopolies of capital against labor. For God's sake, and for humanity's sake, give us a chance, and see if some of us in the future, as many poor young men of the past, will not prove just as worthy members of the profession as those fellows who are so fortunate as to have their thousands. Don't shut us out and bar the door against us. From a humane standpoint we are entitled to better treatment, yes, to the same privileges as the rich young man, for we are just as ambitious as he is, and we shall prove ourselves as worthy.

Hazleton, Pa.

F. H. BOND.



## The Standard of Graduation.

DR. JOHN C. STORY, IN SOUTHERN DENTAL ASSOCIATION.

IN respect to dental laws and dental examining boards, it seems to me eminently proper for this association, the great representative body and exponent of Southern dentistry, to speak out in very decided and unequivocal terms. While it is true the cry is heard on every hand, and the demand at all times is for a higher standard of education, yet it is obvious that the action of the Faculties Association at a late meeting, in lengthening the time for graduation from two years to three, is not so well calculated to raise the standard of education as it is to work hardships on many young men, who are struggling against poverty to obtain an education, and are financially unable to meet the heavy expenses incident to three courses of lectures, and who, were it otherwise, would develop into honorable members and shining lights in our profession. Observation teaches us that our ranks are filled, not from the rich and opulent, but he who carves his way to fortune in our calling begins with fingers untipt with gold, and fights without gloves through poverty and obscurity to wealth and fame. To my mind there is but one safe road out of this difficulty, and this leads to a plane on which all colleges, with the honor, high standing, and well-being of the profession uppermost in their minds, can meet and act as the standard for graduation. It is the affirmative answer to the question, "Does the student know enough?"

Let the colleges put this "know enough" high enough, and when the student reaches this standard graduate him, give him his diploma, tho he may have attended but one course of lectures, and withhold his graduation till he does reach this standard, tho he may have grown gray in a dental college.—*Southern Dental Journal.*

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G. M. M. wishes to know the best method of preventing a patient throwing forward the lower jaw in taking an articulation. I do not think there is any infallible rule. The best method is invariably the one that proves most successful in the hands of him who employs it. I make use of the following, and get very good results:

After the base-plate (and for obvious reasons I *always* use gutta-percha or modeling composition for base-plates) has been properly molded and trimmed to conform to the outlines of the mouth, place on as little wax as will accomplish the object, and proceed without any preliminaries or advice whatever, by having the mouth slowly closed. While in the act of doing so, direct the patient to swallow. In most instances this will suffice, as in the endeavor to swallow, the muscles are relaxed and the jaws fall in normal apposition. Then proceed in the usual way. In extreme cases, however, sit the patient erect, and incline the head well backward.

Pittsburgh, Pa.

DR. CHAS. FELKER.

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Editor Items:—In reply to G. G. M., in September number, would say the best remedy for a patient protruding the lower jaw while taking an articulation is to tip the patient's head as far back as possible, and tell him to swallow and close the jaws at the same time. If the wax bite is in the mouth, its correct position can be noted—it being almost impossible to bite forward when the head is thrown back.

London, England.

W. MITCHELL.

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To Get a Good Bite.—After properly trimming the wax models place them in the mouth, and place the right hand on the back of the neck and the left on the forehead, and force the head as far back as possible, holding the neck stiff with the right hand, when it will be difficult for the patient to throw the lower jaw too far forward, and the closure will be natural.

La Grange, Texas.

W. N. MURPHY, D.D.S.

## Instruction in Prosthetic Dentistry.

DR. L. P. HASKELL, CHICAGO.

IN a recent number of the *Ohio State Dental Journal* I published a short article on the teaching of Prosthetic Dentistry, in which I took the ground that there needed to be radical change made in teaching this branch of dental science. As at present conducted it is very unsatisfactory to the student. Of this I am constantly being impressed by the interviews, personal and by correspondence, with dentists who are graduates of the various dental colleges; men who did not seek to evade the laboratory while in college, but were anxious to learn, and now realize how inadequate was their instruction at college. There recently met at our school as students, three graduates of a Philadelphia college, classmates, who had not met since their graduation, several years ago; one from North Carolina, one from Indiana, and one from Iowa.

Under existing circumstances it cannot well be otherwise. In the first place, prosthetic dentistry cannot be taught in the lecture room; as a rule, too much of the valuable time of the student is spent there. In the second place, the lecturer should have a well-defined theory and method of his own, and not confuse the mind of the student with a variety of methods, some of which were perhaps long since obsolete. Thirdly, he should have a sufficient remuneration for his services to enable him to demonstrate, personally, in the laboratory his methods, and not leave it to demonstrators who are often recent graduates with little experience, sometimes, also, demonstrating methods of their own, and so confusing the student.

Just what changes to make, and how to accomplish them, is the question. One thing is certain, more time ought to be devoted to technical instruction in prosthetic than in operative dentistry, for it covers a much broader field, is more difficult to master, and is fully equal in importance.

I fully believe that more satisfactory results could be accomplished by condensing the instruction in this department into a certain number of weeks at the end of the term, if that were feasible. Then, too, if the necessary results cannot be accomplished otherwise, send the graduate forth with less of theory and more of the practical. As it is now, he is crammed full of theory; can tell you all about the bones, nerves, blood-vessels of the foot, but is totally unqualified to construct a denture of gold, and oftentimes not a correct one of rubber.

I speak advisedly on this subject, having had four years experience in one college, three years in another, and having given clinics of one to four weeks in four other colleges.—*Dental Review*.

**Inhalation of Oxygen.**—Karl von Ruck, B.S., M.D.—Undoubtedly some benefit has been derived from such inhalations in anemia and digestive derangements, also in forms of dyspnea I have seen patients made much more comfortable after each inhalation, especially when a small quantity of nitrous oxide was added. I have also seen an occasional but undoubted increase in the number of red blood-corpuscles under its administration, both in essential and symptomatic anemia, especially when iron preparations, which alone had proved inefficacious, could be administered at the same time. Its range of usefulness in consumption is secondary to many other means, and it is only occasionally that anything more than temporary relief can be given, and, however plausible the theory as to its influence on nutrition, practical experience shows that its use is always experimental, and frequently without result, the same as in its employment in other diseases. Its mixture with nitrous oxide, in the form of the so-called "compound oxygen," by the temporary stimulating or intoxicating effect of the laughing gas, has no advantage, except in dyspnea, but it makes the patients who become the victims of charlatans feel that "something powerful" is present in such inhalations, and induces them to believe in it the more readily. This "compound oxygen cure for consumption" still flourishes in many localities, the same as do the quack remedies for the same object on the shelves and

counters of our druggists, and I have no doubt the venders of such, with their advertisements, are as injurious parasites on the consumptives as are the tubercle bacilli themselves; and while we must acknowledge that our efforts in phthisio-therapy against the latter have thus far been unavailing, many lives could undoubtedly be saved if the former could be extinguished by the enactment of wise laws which would oblige them to derive their means of livelihood otherwise than by trifling with human life.

Capping Pulpas depend entirely on circumstance and condition. Probably no other operation in dentistry requires such careful discrimination. Rules cannot be laid down and invariably followed without bringing the operator to grief. The age of the patient is often given as a factor in the case, and so it is; but it is not an absolute factor, as we are sometimes led to suppose.

For instance, we are told never to cap a pulp for an aged patient, but what shall we do in the following? An infirm patient comes with an exposed pulp causing trouble from a slow, irritating inflammation. The pain is not excessive—merely a grumble. The patient calls—not for increased pain which would be likely to result from an effort to destroy the pulp, but—for relief from pain. Infirmity pleads against violent suffering. Shall we run the risk of unnerving our patient completely by applying arsenic? or shall we take the more humane method of nursing the pulp into quiescence even if we may not hope to save it alive for long? In this connection we are often told to make the pulp comfortable first and then apply arsenic, but who of us have the heart, after we have once relieved our aged patient, to take the chances of again starting pain even worse than that which we have allayed? We are never sure how much suffering we shall give by applying arsenic? Often when we expect the least we give the most. So in these cases it is better to cap, and if the pulp must die let it die of its own accord, which it often will do painlessly.

It is with other rules as with this—we must study each case individually, and with a view only to the best interests of our patient. As to methods of capping, there is enough material in it for a future article.—Ed. in *Dental Review*.

Implanting and Replanting.—On Physiology, in the Am. Den. Congress, Dr. Ottofy reported on implantation. The oldest case on record had remained apparently a perfect success for three years and five months, until June of this year, when it dropt out, leaving the root in the jaw. Absorption had gone through the neck. This is possibly an instructive case and suggests the inquiry "Was that tooth perfect when inserted, or was it fractured at the neck by the forceps?" A close examination of extracted teeth will demonstrate the fact that ninety per cent of them are injured at this point, in this way.

The following is *apropos* of this subject: Two weeks ago a gentleman placed himself in the hands of Dr. Ottolengui. After the needed attention had been given, the patient remarked: "I have one tooth which has quite a history. I suffered very much with an abscess and called on Dr. Park, of St. Louis, to have the tooth extracted. He removed the tooth, and then asked me to return in the afternoon. I did so, and to my surprise he replaced it, having cut off the end of the root and filled the cavity. *This was seventeen years ago.*" As the patient had very few teeth remaining, and as patients are proverbially inaccurate in relating histories of their mouths, Dr. Ottolengui asked him not to point out the tooth, but to allow him, Dr. O., to search for it. By tapping, he to his surprise finally isolated a first bicuspid on which was a gold crown. The patient admitted this was the tooth, and explained that he had broken off the crown about five years after the replantation. Was this case similar to the one reported by Dr. Ottofy? That is, was the crown lost by absorption due to injury to the cementum made by the forceps? Here seems to be an authentic case, where a replanted tooth is a success, since it has been retained in a mouth for seventeen years, in spite of the fact that the surroundings are not hygienic, and that other teeth have been lost from pyorrhea alveolaris.—*Dental Mirror*.

## Laboratory Hints.

DR. WM. H. STEELE, FOREST CITY, IOWA.

### PLASTER CASTS.

**H**AVE the following articles on your bench ready for use: 1st. SOAP VARNISH, made by dissolving English white Castile soap in soft water to the consistency of milk.

2d. DREDGE CUP. Take a half-pound baking powder can, and have your tinner make a cover for it, having the entire top part made of strainer wire, such as is used on milk pails. Keep this cup always filled with fine, strong plaster.

3d. BOTTLE OF MIXING SOLUTION. Consisting of soft water and two per cent of alum, or borax, or sulphate of potash.

4th. PEPPER-BOX, filled with fine, powdered soap-stone, and a jeweler's extra soft bench-brush.

We will suppose you have a perfect impression for full mouth. Coat the impression with soap varnish, brushing it in thoroughly till a good lather forms; now rinse off with cold water and it is ready to pour. Next pour in your bowl the right quantity of mixing solution, then add the plaster, shaking it in carefully from the dredge cup till it comes a little above the surface of the solution; stir a little. If not thick enough, shake in more plaster, for to have a good, smooth, hard model it should be worked as thick as possible, and it can be worked very thick as the solution used causes it to set slowly. Now fill the impression slowly, tapping the bottom of the cup to make the plaster settle and drive all air to the surface. When the model is hard enough, separate it from the impression and let it stand to dry. Shake the soap-stone over it thickly and polish with the jeweler's brush till perfectly smooth. A model made thus, and then before packing, covered with the tin-foil, or liquid-tin, gives a plate as smooth as when vulcanized on solid metal cast.

### SOFT RUBBER CONES AND WHEELS.

We all know that soft rubber, in the shape of wheels and cones, both smooth and corrugated, makes one of the best vehicles we have for carrying all kinds of polishing powders, for finishing fillings, and like work at the chair. It has often occurred to me that they would be just as useful in the laboratory; and, as they were not on the market, I worked out a plan for making them, whereby any dentist can have a good supply at a small outlay.

To make the patterns for cones, take a square piece of soft wood of suitable length and size; center it by drawing lines diagonally from opposite corners across the end; make a hole in the center about one-eighth inch, or proper size to fit the chuck end of your lathe. Next cut a piece of steel rod the right size to go into the hole and project one-half inch. Mount the pattern on the rod with shellac; place in the lathe and turn down to size and shape desired; to corrugate them, run a V-shaped chisel from base to point. Turn out of good select pieces of wood other cones and wheels, just like the first but smaller; these latter are to be used as cones on which to vulcanize the rubber, and the cones should be three-eighths inch shorter and five-eighths inch less in diameter than the patterns. When the patterns and cores are ready, flask as follows: The flask should be a three-ring one, or else one with a shallow bottom, and very deep top ring. Fill the bottom ring with plaster, and, when it begins to set, smooth off even to the top of the flask; imbed as many of the patterns as the flask will contain, sinking the rod and about one-eighth inch of the wood. When hard enough, varnish the whole face of the mold—wood-patterns and all. The pouring of the top ring requires a great deal of care, to avoid the formation of bubbles or air cavities. Mix the plaster quite thick, pour in a little at a time, jarring the air to the surface each time you add plaster. When the plaster has set, the flask should be opened carefully by prying apart all around the joints. When open, remove the wood-patterns, and replace with the wooden cones on which the rubber is to be vulcanized. The cones should

have their surfaces pitted all over to hold the rubber firm. Cut the rubber in strips about one-fourth to one-half inch wide, and long enough to reach to the bottom of the hole, and extend out far enough to allow sufficient surplus. Warm the top part of the flask, also the rubber; pack the rubber lengthwise till you are sure there is more than enough to fill the space between the cone and plaster. Put in the bolts, heat and close the flask as for a set of teeth. The time allowed for vulcanizing must be governed by thickness of pieces. I usually run to twenty pounds, then give thirty to forty minutes to reach fifty-five pounds, and hold at this point thirty minutes. The smaller wheels and cones can be made of solid rubber; in which case, vulcanize a little slower and give more time. The rubber used for this work can be bought of any dealer in rubber stamp goods, and should not cost more than seventy-five to ninety-five cents per pound.

### MAKING RUBBER CORRUNDUM POINTS.

For this purpose procure of some dealer in stamp makers' supplies (they can be ordered of the Steel Stamp Works, Belmond, Iowa), a top and bottom clamp-plate and flask complete, such as is furnished with the small steam outfits. This can be used in any three-case dental vulcanizer.

MAKING THE MOLD.—There are two ways to do this, viz.: Casting or cutting it. I will describe the latter. Have four rows of holes bored through the top clamp-plate equal distance apart in all directions, and just right size, so that ordinary mandrels and bur-shanks used in your engine will fit in them tightly. Next select wood polishing points, the size and shape you wish to make, and cover them with asbestos fire-proof paint. After the paint gets hard, force the shanks of the points into the holes made in the top clamp-plate, in such a manner that the heads (or polishing points) will rest tightly against the smooth side of the plate. Place a piece of three-quarters inch thick printers' wood reglet across the bottom, and up the side on the bottom clamp-plate; now put the top plate on the wood reglet, put in the bolts and screw down together. Before closing tight, be sure all the corners are tight, thus effectually preventing all leakage at the corners. Use Babbit metal, zinc, or old type metal for the mold. Put the flask on the stove, so it will be warm by the time the metal is melted. The ladle with the metal in should be placed on the stove, and allowed to become at least hot enough to scorch paper. If too hot, it can be cooled by adding more metal. A little oil or rosin should be stirred in the metal before pouring, it will settle the dross and cause it to pour more freely. Pour the mold rapidly without choking, moving the ladle back and forth as you pour. Allow a few minutes for the metal to cool; take off the bolts; open up the clamps; take out the mold; trim off all ragged edges; remove the wood points; polish the cavities made by them, and the mold is done.

For the points use best grade of stamp rubber costing \$1.25 per pound. Take a sheet of the rubber and warm till quite sticky; now sprinkle both sides all over with corundum of the grade you wish your points. Place this between two pieces of the prepared cloth such as rubber is packed in, and run it between the rolls of a rolling-mill, fold it together; sprinkle and squeeze again, and continue this process till you work in all the corundum the rubber will hold. To vulcanize the points, put mandrels into the holes in the clamp-plate, allowing them to project down into the cavities in the molds one-eighth to three-eighths inch, according to the shape and size of points. Pack each one of the molds with the prepared rubber; close the flask; warm it and force it together. Vulcanize at eighty-five pounds for one hour.

Old broken drills, worn-out burs, etc., can be used for mandrels, and your rubber corundum points and wheels will not cost a half a cent each.

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The excursion agent may exclaim "Ho, for Europe" all he pleases, but just the same it's mighty wet hoeing between here and there.—*Washington Star*.

### The American Dental Association.

**A**T the late meeting of this association held at Excelsior Springs, many dentists expressed the opinion that if something was not done to rouse the old-time enthusiasm, this body would reach a period in its existence when the attendance will be numbered by the officers, "debators," members of the National Association of Dental Examiners, representatives of the Dental College Faculties, and a few others who may have "axes to grind."

The time of the association is consumed by meetings of other associations, and but little is given to the interest of great numbers of dentists present. It hardly repays the average dentist to spend time and money to attend, when the only feature of practical interest is the dental dealer's display.

The back-bone of this association was very badly sprained, if not broken, when the members decided this to be a "scientific body," and not to provide ways and means for clinical illustration of the advance made in the practical work of the profession.

The section work, as done at the late meeting, was pronounced a failure. When the meeting was called to order, the officers were not ready to report and the association had to accept a few odds and ends in lieu of what should represent a year's labor.

Why was it that out of an attendance of 350 dentists so few five dollar bills were handed to the treasurer? There must be a reason for this fact which should be studied, and a change made to so increase the interest that every dentist present, who is a member of any State or local society, will not only consider it his duty, but his pleasure, to become a member and do his part in making this organization what it should be—the representative body of the entire profession, not what it is, an old-time institution, whose usefulness is almost ruined by "political wire-pulling" for the next place of meeting and as to who shall occupy "positions of honor."—*Archives*.

**A Question of Legality.**—James Buchanan, one of the members of the Trenton bar, proposes to fight the New Jersey State Dental Society, on the question of legality of the suit against Dr. Woodward, of Trenton. The suit was brought by the society because Dr. Woodward did not register under the Marsh law, which was approved by Governor Abbott, on April 7, 1890. The society, on the authority of the said law, claims that Dr. Woodward is practising his profession illegally. Dr. Woodward had registered under the law of 1880, and, therefore, claims that he is legally practising his profession. Lawyer Buchanan proposes to cite numerous authorities in law who maintain that the said Marsh law is unconstitutional, both as regards the constitutional law of New Jersey, and the Fourteenth Amendment of the Constitution of the United States. The Fourteenth Amendment provides that no State shall pass any enactment which abridges the liberties and immunities of the citizens of the United States. The High Court of the State of New Hampshire has already declared a similar law to be unconstitutional. The fight between the State Dental Society and Dr. Woodward is enlisting the attention of the members of the profession throughout the country, and the result will be awaited with interest.—*New Brunswick (N. J.) Fredonian*. From (Buffalo) *Dental Advertiser*, October, 1890.

### Make Your Own Heating Gas.

**I**T may be an "item of interest" to some one, located as I am, where there is no city gas, to know how I constructed a good heating apparatus, producing a steady, smokeless and hot flame, suitable for most laboratory operations. It can be constructed at a cost of not exceeding two dollars for materials and the production of gas at a mere trifle of expense.

I first made a small bellows, which forces air through a rubber tube to the bottom of a two-quart kerosene can, to the spout of which can is a rubber tube leading to a small gasometer, made of tin, varnished inside and out with asphaltum

varnish. From this is a tube to a wash bottle, and from this is a tube to a bunsen burner.

I put about a quart of gasoline in the kerosene can or generator, work the bellows which forces air through the gasoline into the gasometer, where it awaits your pleasure in the form of a gas which is nearly equal to that servant which our city brother is so fortunate as to possess.

Holly, N. Y.

A. W. DAVISSON.

The New Jersey doctors have formed a trust and secured a State prohibitory tariff on the administration of drugs at the summer resorts. They have secured the passage of a law which forbids any New York or Philadelphia physician to answer the summons of any of their patients who may be spending the summer at Cape May or Long Branch, in order that the home market in physical ailments may be secured to the local manufacturers of diagnosis and prescriptions. Jersey doctors and Jersey lightning can perform wonders.—*Practical Dentist*.

[And how is it with dentists of New York or Philadelphia waiting on their own patients at these resorts?—ED. ITEMS.]

**Defective Education.**—Our system of education is principally a process of mental stuffing. The habit of examining and criticising evidence is nowhere taught except in our law schools, and there only very imperfectly. To accept as true all that established authority says is true, and to store up such statements in the mind by an effort of memory, is the kind of training which principally prevails. And if it be granted that most of the utterances of accepted authorities are true, the power to criticise evidence, to determine that which is true or false, and to arrive at just conclusions, is still of far higher value than the mere memorizing of facts. But the fault is not alone confined to the cultivation of a habit of accepting statements of truth solely on authority. It is equally true that things are taught in our schools, of which, to say the least, their truth is yet an open question, and on these doubtful questions it is insisted, more strongly than on any others, that they should be blindly accepted on authority.—*Cosmos*.

**Nature's Form.**—We should restore, as far as we can, what has been lost of a tooth, and bring it back to nature's form. Those in the profession who are afraid to cut away tooth structure make a mistake. Often you fill teeth on the proximal surfaces, and they come back to you in six months, or a year, and you find that decay has taken place around your fillings. If you had cut away sufficient frail tooth structure or allowed the metal of two fillings to come in contact, instead of tooth substance, the fillings would have remained intact, and decay would have been prevented. Do not be afraid to cut away frail tooth structure.—*Dr. C. S. Stockton*.

A very little undercut is all that is needed in the hands of any one at all fit to fill a tooth. It is necessary to remember if in building up the filling it rocks ever so little, it is necessary to take it all out and begin again. I much prefer not to remove all the melted dentine and risk the exposure of the pulp. I say melted rather than decalcified or disintegrated, because it is not decalcified; as the lime salts have not been taken away, they are still *in situ*, and if shut up will grow hard and flinty, as we all know who have had to remove a cement filling. Always wipe out such cavities with wood creosote and oil of cloves.—*Dr. Wm. H. Atkinson*.

Too much value cannot be placed on the power of personal magnetism in the dental operator. The exhibition of tender sympathy in a painful operation does much to mitigate its severity. Everything lies in obtaining absolute confidence of the patient. If the operator shows that he is perfectly familiar with the operation, that he knows exactly what to do, giving no evidence of bungling or embarrassment, no hesitation in the choice of instrument or remedy, there will be less dread and apprehension, the imagination of something fearful will not be aroused, and the actual will be more endurable.—*Dr. Custer*.

### The New Treatment.

RECENTLY the Academy of Biology, before which Dr. Brown-Séquard read his report on his discovery, was notified that the learned doctor desired to acquaint them with new developments in his system. During the winter months, while residing in Nice, he experimented with a septic injection of his famous solution and found immense benefits from it. In his report, Dr. Brown-Séquard claimed that "by his new treatment there had been cured, rapidly, cases of chronic intermittent fever, rooted neuralgia, rheumatism, insomnia, and even leprosy." He referred particularly to a cure obtained by a leading physician in the case of a gentleman "well-known to him and to a fellow-member, M. d'Arsonval," who corroborated Dr. Séquard's statement. It is now in order for the medical profession to fire off a few more of their argumentative—so-called—squibs at this gentleman.—*Practical Dentist.*

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Editor Items.—In September ITEMS I find the following in Dr. Talbot's article: "We have never seen a second cuspid or a third bicuspid on only one side of the jaw. Mr. Salter has observed two cuspids in one individual, and one example of a supernumerary bicuspid."

A few days before reading this, I observed in the mouth of a negro three perfectly developed bicuspids in the right side of the lower jaw; all other teeth regular.

Helena, Ark.

R. E. PRETLOW.

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To Remove Dark Stains from the Teeth.—Many of you have often despaired, doubtless, of removing dark stain from the teeth of some of your patients. The next time such a case confronts you, add a drop or two of aromatic sulphuric acid to your paste of pumice and water, and continue using the soft rubber disk loaded with this mixture, and the stain disappears as if by magic. Floss silk charged with this preparation is a simple yet effective means of removing stains from between the teeth.—*Dr. A. W. Candless.*

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Editor Items.—In recent numbers of the ITEMS I have seen recorded a number of cases of implantation. I have one, which came under my observation a few weeks ago, which, as a success, I think surpasses anything I have seen recorded.

Fourteen years ago, my father, who was then practising at Ann Arbor, replanted an upper second bicuspid. In ten days it was very firm, and has remained so to this day. I recently set a gold crown on the root, the natural crown having in the fourteen years become badly decayed.

Bay City, Michigan.

C. F. PORTER.

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Mr. Editor.—In your August ITEMS OF INTEREST it is said in an article from a Chicago paper on "Aluminum," that "Bessemer steel" was the invention of Bessemer. He was not the inventor. It was invented by a Mr. Kelly, of Kentucky, and the ruins of his old furnace are still standing. Bessemer stole the process, and had to compromise by paying Kelly a royalty of, I think, \$12,000 per annum during the life of the patents.

J. H. REED.

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The clean surfaces of pure gold will weld without the aid of heat, and if the welding property is destroyed by accidental moisture or impurities, it can be restored partially without the aid of heat by washing the surface with chloroform.

THOMAS FLETCHER.

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Dr. Catching suggests covering the top of your operating-table with heavy white paper, over which lay a good plate of glass, with a raised molding around the edge. This is easily kept bright and clean and your points are plainly visible.



### The Cervical Border.

DR. R. FINLEY HUNT, WASHINGTON, D. C.

**E**XEMPTION from cervical decay is not dependent so much on the material that is introduced into the cavity as it is on the character of the permanent preparation of the tooth. I will probably be able to illustrate my meaning by mentioning the two points to which attention should be specially directed in the preparation of the cavity. The cervical wall is the difficult portion of the cavity to reach; and on that account it is frequently improperly prepared. It is a good rule for an operator to devote his closest attention in the preparation of a cavity to all of the most remote and inaccessible portions of that cavity. In the preparation of a cavity on the marginal surface of a bicuspid we may give as much attention as we please to the wall of the cavity; we may prepare the cervical wall by removing all the decay and softened portion of the tissue; but in almost every case an examination will show us that not only is the hard tissue in the cavity, but that the surface of the tooth above the cavity is affected. I speak now of upper bicuspid. If we fail to remove that softened portion of the tissue, and there is consequently a failure to resist the action of decay, caries will commence outside of the cavity, on the surface of the neck of the tooth. At the same time there is no doubt in my mind that the contact of amalgam with these softer dental tissues, the dentine and cement, has a tendency to preserve that tissue. My experience has been that the material introduced becomes changed by chemical action on the metals entering into the composition of the alloy.

So much for amalgam and so much for the preparation of the cavity and the materials that are introduced. But even with the most perfect preparation of the cavity and the most thorough, careful, and successful introduction of the materials with which to fill it, if the systemic or constitutional condition of the patient is bad, that tooth will afterwards decay. Unless you institute treatment so as to bring the system into a condition in which the hard tissues are rendered more dense and more capable of resisting the decay it cannot be stopt. We all know that after filling a tooth on one surface the patient has come back in a short time with the filling good, but the tooth decayed in another part which had previously exhibited no symptoms of decay. Therefore our attention should be directed more closely than it has been to the systemic treatment of our patients.

I am reminded of a case occurring in my practice, that of a girl aged sixteen years, the daughter of an eminent physician of Georgetown. I found that her systemic condition was such that the acidity of the secretions of the mouth was neutralizing the salts of the tooth, and that if this was not changed it would be utterly useless to fill her tooth. This was reported to her father. He paid me a visit and examined me for an hour and a half as to my reasons for the statement I had made. It was an hour and a half of great anxiety to me, because I felt I was on trial, or that, as representing the profession, my profession was on trial before an eminent physician. I satisfied him, however, and he placed his daughter under a course of treatment. She returned to visit me occasionally, and at the end of two or three months her condition was changed. I then filled the teeth requiring filling; I used soft foil. Six years afterward every one of the fillings were in good condition and every other tooth intact. In my opinion, if this course of treatment had not been adopted, her teeth at the end of six years would have been almost a wreck.

We do not give sufficient attention to hygienic conditions. Every dentist should give more to that direction. Not only should our attention be given to patients who come to us with decayed teeth, but we should endeavor to bring about, through parents, an improvement in the systemic condition of the children.—*International's Report of the Maryland Dental Society.*

**Modern Progress.**—Even the toothache exhibits the softening influence of civilization. In the olden time the only remedy was a knock-out; but nowadays it generally results in a draw.—*Terre Haute Express.*

### The Systematic Reading of Good Books.

THE necessity for a liberal reading of good books becomes more pronounced every day. The man who neglects to follow the literature of his age cannot long keep in heart-beat with the advancement of the world.

By-gone ages have left us many a rare gem which must not remain buried. The classics have been an inspiration to millions; the poetry of the past rang out as sweetly as any of modern times; while many branches of science are ages older than we give them credit for.

But even of writings of the present, it is useless attempting to read the title of what is written. Discrimination as to what shall be read and what passed by was never so necessary as now. He who reads all that comes in his way will waste much time and confuse his understanding.

Indiscriminate reading tends to disjointed methods of thought, and this is fatal to concentration of ideas.

What is true of general reading is true of professional literature. Dentistry is accumulating a list of books which must make or mar her reputation as a profession, and we must look largely to these books and to our current literature to keep alive the spirit of investigation and progress.

But even here we must discriminate in our reading. Much that is published on dental topics to-day requires little more than a summary glance, and this fact should be recognized more particularly, and the idea lived up to more rigidly, for some of the things published require our very closest attention and continued study. To simply read some of our scientific articles written by dentists in the last decade, and remain content with that one reading, is a reflection on the intelligence of the reader and an insult to the writer. These articles should be studied often and carefully. Men have put the best thought and energies of a life-time into some of them, and they should not be lightly passed by.

The advantages of systematic reading in dentistry are as apparent as in any other line of thought, and when we consider how fully the time of the average practitioner is taken with other duties it would seem necessary—if he is to get the greatest amount of benefit from his reading—that he looks carefully to learn when to read, what to read, and how to read it.—*Editorial in Dental Review.*

### Phosphate and Chloride Fillings.

WHEN cement fillings were first introduced, it was the boast of those who prepared them that they would withstand the action of the strongest acid. That boast was a well-founded one. As a rule, acid does not affect the condition of oxyphosphate and oxychloride fillings. They are affected by a different chemical agent. I may say I have pursued a line of investigation on this question for a long time, and have consulted some of the ablest chemists in Washington on the subject. I became satisfied that the destruction of cement fillings was due to the presence of an alkali, and I consulted these eminent chemists to ascertain by what means we could determine the character of these secretions or exudations of the gum which gave rise to this alkali. They could not tell. It has been my opinion, and one which I expressed many years ago, that erosion of the teeth, which is sometimes called abrasion, is produced not by the action of the tooth-brush, but by the presence of an alkaloid in its natural state, which is caused by an abnormal condition of the gum. If we take an oxychloride or an oxyphosphate filling and drop it into ammonia it is very rapidly disintegrated and destroyed. We may drop some of that same filling into an acid of any strength, and we will find it is not affected. Now we find those oxychloride and oxyphosphate fillings very often, and in a majority of instances, where they fail at all, fail at or near the cervical wall of the cavity, where the exudation of the gum comes in contact with the filling. I have often found the plastic or oxyphosphate fillings to be perfectly sound in every part except at the cervical wall. At that point a deep cavity in the filling would be found. This showed that the erosion had acted on that and penetrated to the depth of the cavity.

In support of this view I may add that in the course of my investigation in past years I found, in almost every instance in which this erosion was taking place, that the paper test showed alkaline secretions of the gum in the neighborhood of the erosion, while in other parts of the mouth the reaction would be the reverse. So I think the failure of fillings of the material referred to is due, in a majority of cases, to alkaline secretions.—*International's Report of the Maryland Dental Society.*

### An Interesting Operation.

GEORGE W. WARREN.

MRS. M., aged twenty-eight, presented herself for treatment at the clinic of the Pennsylvania College of Dental Surgery. She had worn an upper artificial denture for a number of years, which had been comfortable up to a few weeks prior to her visit to the college, when, as she expressed it, "a piece of her jaw-bone commenced to work through." At least an inch and a half of the superior maxillary bone was necrosed and entirely denuded. From the family history the disease was evidently the result of scrofula, and had attacked the bone at the median line and was following the ridge over the left side of the mouth. It was decided to remove the necrosed portion of the jaw at once, tho nature had made no effort to separate it from the healthy bone, except at the median line. The operation was performed before the class by Dr. Warren. An incision was made in the soft tissue, which was laid back till healthy bone was reached; a deep groove was then cut on all sides of the necrosed portion,—the "New Cord Engine" being employed for this purpose. This was followed by a skilful manipulation of the chisel and mallet, after which the bone was removed with the forceps. When it was found that the left cuspid tooth was lying horizontal, on a line with the ridge, in the body of the healthy bone, this was also removed; the edges of the bone were then smoothed with the chisel, and the cavity, after being thoroughly cleansed, was packed with iodoform gauze, and the patient directed to use listerine daily as an antiseptic mouth-wash. This was continued for about a week, when the gauze was removed, the cavity cleansed with bichloride of mercury, and the edges of the soft tissue, which had been previously refreshed, were brought together and united by means of a stitch. The embedded tooth had, without doubt, induced the disease in this locality.—*International Dental.*

Five drams of camphorated chloral, thirty parts of glycerin, and ten parts of the oil of sweet almonds is highly recommended by the *Times and Register* for the earache. A piece of cotton is saturated and introduced well into the ear, also rubbed behind the ear. The pain is said to be relieved as if by magic, and if there is inflammation it subsides quickly.

**A Painful Sight.**—Two friends were taking a walk, when one of them stopt to show his companion a house. "What a splendid building!" he exclaimed; "but the very sight of it makes one sad."

"How so?"

"Because it reminds you of the owner. Beautiful as it appears to the eye, it was built with the groans, the lamentations, the tears, and the blood of women, children, and of sick persons."

"Was it built by a usurer?"

"No; by a dentist!"

A wash of one part nitric acid in ten parts of water will impart a stain resembling mahogany to pine wood that does not contain much resin. When the wood is thoroughly dry shellac varnish will impart a fine polish to the surface. A glaze of carmine or lake will produce a rosewood finish. A turpentine extract of alkanet root produces a beautiful stain which admits of French polishing. Asphaltum thinned with turpentine makes an excellent mahogany color on new wood.

**Testing Gold.**—To test 18k. gold ordinary nitric acid will not do, as it will not affect 14 and 16 and more than 18k. Take about two ounces of C. P. nitric acid; add two drops of muriatic acid. This will not affect 18k., but will leave a brown mark on 14. The difference can be more easily seen by rubbing on the test-stone and compare with the needles, but if you have no stone and needles you can distinguish the difference by merely dropping the acid on the gold.

In testing a gold case for 18k. the following rules should be observed :

First. File a bright surface, as case may be colored 18k.

Second. Test center and cap, as they are often 14k. while the outside is 18k. This acid will not do to test 8, 10 and 14k. Acid of different grades of strength must be used for this purpose.

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W. P. Beach, M.D., has made a wonderful discovery, and tells all about it to the readers of the *Brooklyn Medical Journal*. He says "an abscessed bicuspid produced a large abscess on the knuckle of the little finger of the left hand of one of his patients." Don't you think, doctor, that the same cause might produce a large corn on the big toe of the right foot of some other fellow's patient?—*Practical Dentist*.

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I always keep ready for use a six-ounce bottle of potassa-alum water, made by adding two or three teaspoonfuls of the potassa-alum to the bottle of fresh water. Use equal quantities of this and fresh water for mixing your plaster. It hardens the plaster and keeps it from shrinking, and, after vulcanizing, your plaster will not stick to the rubber.—*Dr. Penny, in Archives*.

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**Loadstone**, which is known as magnetic oxide of iron, is kept in most of the shops and sold for fifty to sixty cents per pound, and the class of customers who buy it are nearly always street fakirs and voodoo doctors. They sell it to superstitious, ignorant negroes, at fabulous prices, to be used for charms, which they believe will make them lucky, keep off disease, give them power over an adversary, and success in gambling with cards and dice.—*Dixie Doctor*.

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**The Time That Tells.**—Dean Stanley says: "Our leisure hours are among those that have the most importance in molding our character." This applies with especial force to a dentist. His leisure time should be spent in study, reflection, moderate recreation and rest.

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**In Chronic Abscess with fistula of long standing**, nothing is gained by treating week after week. Fill as in other cases; then if it does not heal, make a horizontal incision in the gum, and with a fissure bur amputate the apex of the root and bur out the necrosed bone. It will not heal otherwise. The apex of the root will be found to be denuded, rough and jagged, sometimes black.—*Dr. D. P. Sims*.

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To prevent a patient from throwing the lower jaw forward in taking articulation, instruct him to swallow as he is closing the mouth.

There are several other ways of preventing the protrusion of the lower jaw, but this is the most simple method. JNO. G. FULLER.

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**Treating Abscesses From Their Fistulous Opening.**—Dr. S. A. White treats fistulous opening from the outside in ninety-nine cases out of a hundred, one thorough injection of pure creasote and iodine being found sufficient; the root is filled at the same sitting, and usually in a week no trace of the fistula can be found.

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"It calls for more skill to make a successful denture than to fill a difficult cavity." Perhaps this is the reason that every graduate is "an operator, sir, an operator."—*Odontographic*.

## For Our Patients.

### That Cunning Old Grinder.

I SAT up all night with a terrible toothache,  
 And thought it would lift off the top of my head.  
 One moment I feared I would die ere the morning,  
 The nex moment feared that I wouldn't instead,  
 Its kicking and jumping, its throbbing and bumping  
 Were more than the spirit of mortal could bear,  
 And I understood how some very good people  
 When tortured with toothache were tempted to swear.  
 That worn-out old grinder, that jumping old grinder,  
 That measly old grinder that tortured me there.

I bied to the dentist ere scarce it was morning,  
 But ere I could reach him my pain had all fled,  
 And with it went all of my courage, and therefore  
 That cunning old grinder remained in my head.  
 The following night I awoke in a fright from  
 Dreaming one side of my head was afire—  
 That fiendish old grinder got in a side-winder  
 That made my hair rise, and I thought I'd expire.  
 That ugly old grinder, that cunning old grinder,  
 That grinder that tortured and filled me with ire.

It stopped, as before, when I went to the dentist,  
 And then I engaged him to tarry all night  
 With me at my home, prepared, when I shouted,  
 To come, but until then to keep out of sight.  
 An ambush thus scheming, I soon fell to dreaming,  
 And saw an old grinder, with prongs a foot long,  
 Close hovering o'er me, preparing to bore me,  
 And beat my poor head like a boarding-house gong.  
 That goblin old grinder, that horrible old grinder,  
 That grinder that chased me with prongs a foot long.

I woke yelling "Murder!" The neighbors were frightened  
 The dentist rushed in with his forceps in hand;  
 He caught that old grinder, so cunning, and, presto!  
 It suddenly out on the carpet did land.  
 And thus, quite relieved from my great tribulation  
 Triumphant I gazed on my enemy there,  
 And smiled as I thought that my torture was over,  
 And how that old grinder I caught in a snare.  
 That vicious old grinder, that tricky old grinder,  
 That cunning old grinder I caught in a snare.

WILLIAM EDWARD PENNY, in *New York World*.

### An Aching Tooth.

A HANDSOME equipage, containing a stylishly-dressed young lady and gentleman, halted in front of the house of a New York dentist, at an early hour in July last. The two alighted and were soon seated in the parlor of the dentist who, on putting in an appearance, was informed by the lady that her friend—pointing to a trembling, awe-stricken masculine at her side—"desired a tooth extracted." The two were invited to the operating room, and after the young man had been coaxed into the dental chair, he faintly said:

"'Pon my word, dentist, 'pon my word, I—I—I did think of having a t—t—tooth out, but r—r—really, I'm devilish weak and may be you can stop the pain without extracting it."

"That is all bosh, Jim," exclaimed the young lady. "You have been grunting and groaning with the toothache nearly two weeks, and last night you pledged your word to me that you would have the tooth out this morning, and OUT it MUST come."

"'Pon my word, w—e—a—lly, Josephine, I—I am out of all sorts now, and don't feel like it.

"Fiddlesticks," she exclaimed, her black eyes snapping; "fiddlesticks, you want to make a booby of yourself, but I shan't permit it." Then addressing the doctor, she continued:

"Two months ago, one of the teeth you filled for me, was a little sore, and Jim kept badgering me to have it extracted. 'Do you think,' said he, bringing his fist down on the table with a whack, 'I'd put up with a toothache for even one short hour? No! I'd have the tooth yanked out, and don't you forget it.' Well, I haven't forgot, and Jim must keep his word, or him and me are two, that's all."

"'Pon my word, J—J—Josephine," he whimpered, "you see I'm awfully weak now, and if the dentist will ease up the pain a little till to-morrow, I swear to you I will have it out then."

"There will be no 'easing up' or 'to-morrow' in this case," she said—"understand that."

"The dentist can tell by my symptoms that the operation would be too much of a shock for me, now. Is not that so, my dear sir?" he asked, as if inspired by a new hope.

"Symptoms!" she repeated, scornfully—"your SYMPTOMS, Jim, are COWARDLY, and come from rank cowardice. Is not that so, doctor?" she asked.

"I confess, madam, I quite agree with you," said the dentist.

"And as I despise a coward with all my heart," she said, "I will give you just fifteen minutes in which to have that tooth extracted. If it is not out by that time, you and me part. Now you have my ultimatum, and make the most of it."

"Won't you give me till noon (it was ten o'clock), Josephine, and I'll do as you say?"

"Not one second longer than the time I have fixt," she said, taking out her diamond-studded watch and noting the hour critically.

"Do you think, dentist, it will h—h—hurt much?" he asked, in a voice that denoted an anguish of mind.

"But a moment," was the laconic reply.

"C—c—couldn't you give me something to kinder brace me up?" he inquired, with a pleading look.

"Five minutes have gone, young man," she said, looking again at her watch.

"'Pon my word, J—J—Josephine, dear, how can you be so c—c—cruel to a fellow," he said, trembling all over.

"Only eight minutes remain to you, Jim. Remember, my word is my bond," she said.

"C—c—call it twenty minutes and I'll have the d—d—damned thing out, Josephine, there now," he whispered.

"Five minutes more and the extreme limit will have been reached," she said, in a voice that denoted earnestness.

"H—h—how long, d—e—n—tist, will it take to p—u—l—l that tooth?" he asked.

"Only a moment, I think," was the reply.

"You have only three minutes more, Jim. If the tooth is not out when this time is up, I will never, NEVER speak to you again, so help me heaven."

"L—e—t 'er rip, d—e—ntist," he muttered, grasping convulsively the arms of the chair, and more dead than alive from fright.

The doctor did "let 'er rip," for in an instant the tooth was safely lodged in his forceps, and the young lady was briskly fanning her lover, who had gone off in a dead faint.

"You are a brave darling," she said, caressing him fondly, when signs of renewed animation were seen.

"NOT A DROP OF COWARDLY BLOOD IN MY VEINS, dear," he stammered out; and soon thereafter the two were seated in their carriage and chatting merrily.—  
*Practical Dentist.*

## At the Dentist's.

*Revengefully dedicated to Dr. —*

MY mournful tale of bitter woe,  
Oh victims of the dentist, hear,  
And when you know of all my pain,  
For pity's sake do shed one tear!

One frosty day in early spring  
To Dr. Blank I had to go  
To get some teeth filled. Did he strive  
My pain to lessen? Ah! not so!

He pounded till you might have thought  
To murder me he meant to try.  
I bore it nobly for a time,  
Then fiercely uttered this sad cry:

"Oh, Dentist! In our hours of ease,  
So smiling, kind and glad to please,  
When pain and anguish wring the brow,  
A very fiend of evil—thou!"

He smiled at this, a grim, sad smile,  
And said the lines were "very good."  
Which *he* was *not*, I grieve to say,  
For soon he hurt me all he could.

And I need scarcely say that while  
He dug and pounded for an age,  
And filled my *tooth* with stubborn gold,  
My gentle *heart* was filled with rage.

\* \* \* \* \*

I had to go another day,  
And oh! the tortures suffered then;  
They never could be half revealed  
By tongue or pen of living men!

Two instruments of torture new  
By this time he had laid in stock,  
And when I saw—or rather *felt*—  
Their power, it gave me quite a shock.

The one I named a "bumble-bee,"  
And well did it deserve the name,  
For in it buzzed, and out it flew,  
And left a sting where'er it came.

The other was a mallet small,  
But oh! the pain that it did bring,  
You would not dream could be produced  
By such a very little thing.

But let me tell you how it worked,—  
The dentist gently o'er me leaned,  
And when he'd put the gold in place,  
'Twas pounded by another fiend,

Who hammered it with all his might  
With the aforesaid mallet small,  
And the first fiend would "Harder!" cry,  
"Why you can scarcely strike at all!"

No need to say that I was *struck*!  
And as the blows fell fast and thick,  
Oh my! the longing that I had  
To give them both a gentle kick,

Or hit them very hard indeed.  
But then I thought 'twas not polite,  
Though when it came to striking *me*  
It never struck them in that light!

And so I never said a word,  
Though I was getting very weak—  
*One* reason for my silence was,  
That 'twas impossible to speak.

Because the dentist's fingers clutched  
My mouth and kept it open wide,  
Until I felt inclined to ask,  
"Pray, do you wish to step inside?"

\* \* \* \* \*

Dear fellow mortals, if you're wise,  
You'll not go near a dentist's chair,  
Lest all the pangs you there endure  
Should make you wish to tear your hair.

Well now, I think I've said enough,  
And if this tale of horrid pain  
Will warning give to any soul,  
I shall not have endured in vain.

—COWLEN, in *The Critic*.

## Where Ignorance is Bliss.

MRS. VAN BIBB—What is the matter with my husband, doctor?

DOCTOR SCHMERZ—Well, he has symptoms of mania-a-potu, in addition to acute cephalalgia and nasal hyperæmia.

MRS. VAN BIBB—Oh, dear! What do you supposed caused it?

DOCTOR SCHMERZ—I think it is due to excessive cereuisiac and caudagallie absorption.

MRS. VAN BIBB—Poor, dear fellow! And mother said there was nothing the matter with him, except that he had been drinking too much. I shall never forgive her.—*Puck*.

Very Frank.—PRISON VISITOR—You seem an honest fellow, and I feel an interest in you. Could anything be done to make you more comfortable?

CONVICT—You bet!

VISITOR—What?

CONVICT—Lemme out!—*Puck*.

## Josh Billings' Philosophy.

## SEDIMENT.

**K**ONSERVATISM iz merely a kompromize between rite and wrong.

Beware ov the man who listens mutch and talks little. He iz getting yure thunder and saving hiz own.

Evry thing that iz natral iz stylish, whether it iz the effort ov an orator on the forum, or a clown in the sirkus.

If we do away with forms and ceremonys, evry one ov us will hav to karry a revolver.

All the civilizashun the world has seen thus far began in barbarism, and all ov it haz or will end thare.

Common sense iz instinkt, and enuff ov it iz genius.

Lucky people are thoze who take evrything just az it comes, and dont seem to kno the diffrence between good luk and bad luk.

The boy's head and heart iz a mine ov exaggerashun, a flock of 75 blackbirds—bi hiz arithmetik, contains at least a millyun ; and one little church mouse kant venture out of his hole for an airing during service without being multiplied bi at least three hundred and fifty.

All nobility cums from natur ; all that a title kan do iz to acknowledge the nobility.

Yesterday iz gone, tomorow may not cum, today iz here, uze it and enjoy it.

Luv and literature dont mix well ; in fakt, eating pea nutts iz about all the bizzness luvvers kan do to advantage.

We seem to luv those the most whom we kan control the least.

Fortune iz a coquet, and when she sez "*she wont*" the most, then iz the time tu woo her the sharpest.

We are all of liable to mistakes, but it iz only the wise who profit bi them.

Life iz sed to be short ; but yu wouldnt suspekt it to see how people waste it.

Yu kan reach stupidity only with a cannon ball.

If the gud people ov the world would only make virtew as attraktive az sin iz made, they could route the devil at all points.

Out ov the lies that are traveling around its astonishing how few fust rate ones thare are. I begin to think that lieing haz seen its best days.

All the inspirashun thare ever waz, or ever will be, on earth iz *truth*. Enny man who utters the truth iz insired.

Surfeit haz killed 10 thousand, while starvashun haz not killed one.

Mi dear phellow, a 3 kornered thing wont fit a square hole, you neednt try tu make it.

Kleanliness is a decided virtew, and haz been ranked next to Godliness. One thing is certain, a neat raskall and a dirty Christian are two difficult things tu find.

Thare is a grate deal ov fame that iz good for nothing only ornament a tume stun with.

Next to our instincts, our habits control us the most.

Close Figuring.—MRS. CLOSECLUTCH—"Jimmy has had the toothache all day. He can't eat a thing."

MR. CLOSECLUTCH—"I'll have it pulled day after to-morrow. There will be enough saved by that time to pay the dentist."—*Terra Haute Express*.

All those who pass thro the door to success will find it labeled "push."



## Editorial.

### Phonetics.

FROM time to time we have called attention to the desirability of simplified spelling, by using a fixt letter for each elementary sound and throwing out all superfluous or misplaced letters. We have endeavored not to weary the readers either of our ITEMS OF INTEREST or of our AFRICAN NEWS. And yet we are so interested in this subject that we like to say all we can, without giving unnecessary offense.

We are glad to see some fruits of our labor, tho we must say it seems strange that every intelligent person is not doing all possible to make fonetics popular.

Those who have read the history of languages and their representation by signs, will have noticed how crude, indefinite and confusing language and its representation by signs at first were. But, gradually, both spoken and sign language improved, tho spoken language has always been in advance of the use of signs made to represent it, as it is now. It has needed the constant efforts of some of the more intelligent to keep the language from being cramped by a want of proper signs of written expressions; for even the majority of intelligent writers have in all ages clung to whatever is, however crude and clumsy that may be.

The English is written the most clumsily and unfonetically of all the languages of civilized nations. We have an alphabet; but it is largely used arbitrarily, not fonetically; so that spelling is a subject of memory instead of sounds of letters used. Words are made pictures, like the Chinese words are made, instead of being composed of letters representing their sounds. For instance, we present *enough*, and say that stands for enuf; we do not pretend it spells it. *Phthisic* spells nothing; it is a mere picture standing for tistic or tisis, as you prefer. What does s-l-o-u-g-h spell? Nothing. As a picture or hieroglyphic, it stands for sluf or slow, just which you choose.

Till the Phenicians made a fonetic alphabet this hieroglyphic mode of expressing thots and things was excusable; but now we have no use for them. And yet we cling so tenaciously to the swaddling cloths of our language in its infancy that there are few words made up of their proper letters. When we had but twelve letters in our language they were used more fonetically than we use letters now; when these were increased to sixteen, to meet new sounds entering into our expanding language, the written language was richer in expression than now, tho we have twenty-six letters; for we have now less letters in proportion to the elementary sounds. Now, as we have forty primary sounds in our language, we should have forty letters to represent them. But, instead of increasing our letters, we have been for a long time increasing the sounds of a single letter; and, to make confusion worse confounded, we use letters in nearly every word that have no business there.

It is a shame; it is a disgrace. And yet we stolidly bear our shame and placidly disregard our disgrace.

We can give no reason for thus making twenty-six letters (and really twenty-three, for c q and x are useless) represent forty sounds. We can give no reason for using these twenty-six letters so clumsily, inconsistently and inconveniently. We can give no reason for not changing to fonetic spelling. We simply sit in the doorway of improvement and neither enter in ourselves nor allow those who would go in to enter.

Come, friends, let us wake up to this question. It is easy to add a few letters and thus have every elementary sound in our language, and then to spell words according to their sounds, leaving out superfluous letters. Why not do it? Every reform must begin with individuals; collective individuals make communities and nations; and, after all, a few govern public sentiment.

**The Identification of Criminals and their Victims by Dental Charts and Plates.**—Many murdered victims have been identified by the work done on their teeth, or by their artificial set, tho the whole body could not be otherwise recognized. The habit of lightly impressing the name of the maker and date on a denture, and preserving in a chart-book all work done, is good practice.

An officer once brought us a hard, sour orange that some one had bitten into, but finding it unpalatable, had thrown it down.

"Doctor," said he, "can you tell me who bit that orange?" The left central incisor was missing, the right central irregular, and the left cuspid very prominent."

"Yes, sir," said I; "I extracted that tooth last week. His name is Hamilton—John Hamilton. Here is the chart of his work; I have not yet completed it."

For theft in the house where the orange had been found bitten he was arrested, confessed the burglary, and sent to prison.

**Action of Peroxide of Hydrogen on Infected Surfaces.**—When peroxide of hydrogen is brought into contact with any diseased surface, either of the skin or of the mucous membranes, its decomposition takes place immediately, and at first "ozone," which is the result of this reaction, coagulates the albuminoid matters of the secretions, the pus is destroyed, and also the bacteria. As soon as "ozone" has accomplished its cleansing effects on the infected surface, it is readily transformed into ordinary oxygen, owing to its instability.

It is of great importance to notice that water, charged with fifteen times its own volume of oxygen gas (formula O) under pressure, has no similar action whatever on the albuminoid substances, as there is no coagulation, and no cleansing effects on the unhealthy secretions of the infected surfaces.

This remark is necessary to establish plainly the difference between the therapeutical value of peroxide of hydrogen and the oxygen or the compound oxygen treatments.

**In Extracting a Tooth** success depends more on the direction and judicious expenditure of force than on its amount. Therefore, it is not always the largest and strongest dentists that are noted for brilliant success. The very consciousness of great strength is sometimes a temptation to use it in excess and do irreparable damage. There should be an instant of clever wriggling of the tooth before there is much pulling, and then a continual wriggling motion.

**Dentists in the Army and Navy.**—Periodically this subject comes up. So long ago as the opening of the civil war S. S. White took a prominent part in bringing it to the consideration of Congress. The most he accomplished was to get an order for the supply of all army surgeons with a set of forceps. If the physicians appointed for the army and navy were as properly qualified in dentistry as they are in surgery, there would be no call for dentists also; but they are not; they are proverbially ignorant of dentistry.

**Washington as Headquarters for a National Dental Association.**—Some years ago we were a delegate to a proposed National Dental Association, to be founded at Washington, D. C. We formulated our plan, received favorable responses from Government officials for space in government buildings for future meetings for a National Dental Museum, and archives for books, papers, etc., and appealed to the Southern and to the American Associations to merge into such a society. But nothing came of it. We see the subject was again brought up in the late meeting of the American.

It is certainly time something was done in this direction.

**Engenol** is the active principle of the clove. Where oil of cloves is indicated, engenol will be found eminently adapted.

Van Nostrand's Magazine says a lacquer of great elasticity, perfectly supple, and not liable to peel off is made in the following manner: About one hundred and twenty pounds of oil varnish is heated in one vessel, and thirty-three pounds of quicklime is put into twenty-two pounds of water in another. As soon as the lime causes an effervescence, fifty-five pounds of melted India rubber are added. This mixture is stirred, and then poured into the vessel of hot varnish. The whole is instantly stirred, so that the ingredients may become thoroughly incorporated. Straining and cooling complete the process. When required for use it is thinned with the necessary quantity of varnish, and applied hot or cold to wood, iron, walls, water-proof cloth, paper, etc.

In an improved bichromate of potash battery, M. Luig Ponci uses a liquid of this composition: One kilogramme of bichromate, crushed and dissolved in four litres of boiling water, to which two litres of chlorohydric acid are added. No formation of crystals takes place in the battery with this solution.

There are few things more annoying to a patient visiting a dental office than to have to wait unnecessarily; and if appointments are made with carefulness, tedious waiting will seldom be called for. There is nothing like business promptness, without flurry and confusion.

Substituting One Disease by Another.—A physician of some eminence says he almost invariably succeeds in curing diphtheria by inoculating for erysipelas. The virus of diphtheria in the throat is transferred to the surface, where it is better under control.

Nitrite of Amyl is commended as the most rational and successful antidote to use where chloroform or cocaine seem to threaten life by their unfavorable action on the heart. A few drops of nitrite of amyl administered by inhalation will be one of the most probable means of restoring the heart's action.—*Pacific Record*.

Platina.—Many suppose the termination of this word should be um instead of a. This is a mistake. It is a Spanish name, meaning small silver, and not a Latin word, which would be indicated by um.

German silver is an alloy of nickel, copper and zinc; the best in use is nickel, 6; copper, 20; zinc, 8. It is sometimes called nickel-silver.

A Progressive Science.—Old Mrs. Bentley: "What a lot of new diseases they have now they didn't have twenty years ago!"

Old Mr. Bentley: "Yes, but you should remember, Eliza, we have a terrible sight more doctors now than we had twenty years ago."—*Judge*.

GUEST—What is the reason for all that racket in the kitchen?

WAITER—De cook has struck for more pay, sah, and de boss has struck de cook for doin' so; dat's all, sah.—*Boston Budget*.

HAILSTONE—One last request.

REPORTER—What's that?

HAILSTONE—Please don't say I was as big as a hen's egg.—*Binghamton Leader*.

So Would He.—Aunt Mary—"Poor Budge! Does your tooth ache yet? If 'twere mine, dear, I'd have it out at once."

Budge—"If 'twere yours! Well, auntie, so would I."—*Harpers' Young People*.

James A. Lydston, M. D. Ph.G., late Chief of Eye and Ear Department, Pension Bureau, Washington, D. C., has accepted the Chair of Chemistry in the Chicago College of Physicians and Surgeons.

We are indebted to advanced sheets of the *Cosmos*, for the reports of the National Association of Dental Examiners, and the National Association of College Faculties. Dr. Martindale, Secretary, wishes us to add that Dr. T. S. Waters presided at the meeting of the Board of Examiners.

The twenty-third annual meeting of the American Academy of Dental Science, will be held in Boston, on Wednesday, November 12, 1890. The Annual Address will be delivered by W. W. H. Thackston, M.D., D.D.S., of Farmville, Virginia.

Another valuable book just issued by J. B. Lippincott Company, is Prof. Garretson's Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, and Associate Parts. On the appearance of the first edition many years ago, it assumed the leading place as a text-book, to which its merit and the distinguished position of its author entitled it. Much important matter has been added to the new edition, together with numerous illustrations, which greatly increase its value to dentists, surgeons, and physicians.

The seventh edition of "Da Costa's Medical Diagnosis" is now announced by J. B. Lippincott Company as ready. The work has undergone a thorough revision at the hands of its eminent author, and many chapters have been entirely re-written, so as to inculcate all that has been added to our knowledge of disease up to the present time. A number of wood-cuts are included, especially of such micro-organisms as have proved to be of practical significance in diagnosis. All the illustrations are original, and many are from sketches, or based on sketches, taken directly from cases of interest. There is no work more helpful to a young practitioner than this one, which has already been pronounced by eminent critics "the best book on diagnosis extant."

Practical Dental Metallurgy, by Thomas Fletcher, F.C.S. Warrington, England. For sale also by Wilmington Dental Co.

This book is a collection of odd working notes put together for Mr. Fletcher's own convenience and reference. To these he has added such information as he has been frequently asked for in private letters, and which he has not had time to answer. It is both incomplete and imperfect when considered as a class or text-book, and is designed only to be useful for dentists in practice.

A Compend of Dental Pathology and Medicine. By Geo. W. Warren, D.D.S., Philadelphia. P. Blakiston, Son & Co. Price not stated.

This little book contains the most noteworthy points on various subjects of interests to the dental student. Its first part treats of the development, structure, and diseases of the jaws and teeth; and the second part treats of dental medicine. It is very concise, plain and practical.

The Periosteum and Peridental Membrane. By G. V. Black, M.D., D.D.S. For sale by the Wilmington Dental Mfg. Co.

This is a careful study of the histological character of these membranes. Nothing is spared to make the subject complete in every respect, as everything is done by Prof. Black.

Dr. D. L. J. Mitchell, formerly of Delaware, Ohio, and Dr. W. Mitchell, succeed Dr. W. H. Geo. Elliott, at 39 Upper Brook street, Grosvenor Square, W. London, Eng. Dr. Elliott retires from the profession, and goes to live in Washington, D. C.

**"Student's Manual and Hand-Book for the Dental Laboratory."** By Prof. L. P. Haskell. Wilmington Dental Co.

At the urgent advice of members of the profession Dr. Haskell has prepared this work, for which there seems to be a place in the laboratory of the young dentist, to say nothing of the older members of the profession, who, in these days of rubber plates, have had little experience in metal work.

The text-books are too diffusive, embodying too many methods for the same object, confusing to the student, and inconvenient as hand-books.

This book embodies the result of forty years' experience in the dental laboratory and exclusive attention to prosthetic dentistry, furnishing methods which have been thoroughly demonstrated as simple and effective, producing satisfactory results.

It is not intended to take the place of the text-book in the dental college, tho the student will find it there a valuable aid in the prosecution of his preparatory work.

Dr. Haskell says, referring to his second edition, recently issued :

"For the flattering reception the first edition of this work received at the hands of the dental journals, and the profession at large, I desire to return my thanks.

"Suggestions from several sources as to additional illustrations have been heeded.

"My reason for including in this work Dr. E. H. Angle's system of appliances for correcting irregularities is that it is the most simple, and at the same time effectual, of anything that has been devised, avoiding plates and ligatures, occupying but little room in the mouth, unintermittent in its operation, and requiring no additional appliances for retaining purposes. Dr. Angle has re-written and largely illustrated his work."

**"Irregularities of the Teeth and Their Treatment."** By Eugene S. Talbot, M.D., D.D.S.

In presenting to the profession a work on the irregularities of the teeth, the author has endeavored to keep in view the marked progress that has been made in this department of dental science within the past few years. This treatise is intended to embrace all that is necessary to a clear and practical understanding of the etiology and treatment of dental irregularities. Our knowledge of the etiology of the various deformities of the teeth has hardly kept pace with the marked advancement in the methods for their correction, and this fact has induced the author to devote considerable attention to the causes of such conditions, while a proper consideration has been given to the methods of treatment. No pretense has been made to cyclopedic fulness, for it is believed practicableness and conciseness in a scientific work are preferred by the profession to verbosity and minuteness of detail.

In that portion of the work devoted to descriptive anatomy and to physiology, attention is given to those tissues only that are immediately involved in the study and correction of irregularities. Each subject is considered in the order in which it would naturally present itself to the mind of the operator while the patient is before him, this clinical character being deemed by far the best for a work of this kind. In the treatment of irregularities, mechanical laws are illustrated and applied in the simplest manner possible, each law being applied practically to a case of irregularity ; this method being apparently the best to impress the principal features of the operative treatment of irregularities on the mind of the student. It would be obviously impossible, as well as useless, to illustrate every position in which a wedge, screw, lever or spring may be applied ; but the author has endeavored to represent, in each illustration, a principle or law so clearly that the student will be able to exemplify each principle in a variety of ways.

**"Quiz Questions on Dental Pathology and Therapeutics."** By Prof. J. Foster Flaggs, D.D.S. Answered by Dr. William C. Foulks. S. S. White Dental Mfg. Co.

To meet the large and increasing demand for "Quiz Questions," the publication of a third edition of this work has been required.

The book has been revised and enlarged, and is again offered to the dental profession as a work for *reference* in daily office practice.

It is the *only book* that contains in a *condensed and practical form* the general facts and principles of dental pathology and therapeutics, as enunciated by Prof. J. Foster Flagg, D.D.S., in his lectures at the Philadelphia Dental College on the *treatment and saving* of teeth.

**Anesthesia**, by Lawrence Turnbull, M.D., Ph. G. Published by P. Blakiston, Son & Co., Philadelphia. We should be pleased to give the price, but this is not furnished.

This little work was originally written by the author as a report for a medical society, and was subsequently extended to its present form to supply a want that evidently exists for a convenient hand-book on the administration of the various anesthetics, that the practitioner of medicine or dentistry can consult, to enable him to decide which one he can best employ. Many valuable books have, unquestionably, been written on anesthetics, but few of a practical character. Much useful matter in relation to ether, "nitrous oxide," and chloroform, employed as anesthetics, has accumulated, but contained in various monographs, journals, etc., where, associated with what is extraneous, it is unprofitable to the busy practitioner.

The object of this work may be stated to be:

*First.* To give in as concise a manner as possible a description of the most available agents that may be successfully and safely employed as anesthetics.

*Second.* To present the chief chemical tests of the purity of each substance considered, with its composition, physical characters, and medical properties.

*Third.* To exhibit the best methods of administering the various anesthetics, to give careful directions, and to state the precautions to be taken to avoid risk to the life of the patient.

*Fourth.* To note the personal experience of the author, his assistants and friends, with anesthetics and the various forms of inhalers in use, with a selection of the most approved, not withholding, however, the objections, but noting the experiments of other reliable investigators.

*Fifth.* To compare the relative mortality from all the anesthetics now employed, endeavoring to assist the reader in forming a fair and candid opinion of this most important subject, which is now, and has for so long a period, occupied the attention of the public as well as of the medical profession.

To conclude are added practical hints on Local Anesthesia, the use of the various anesthetics in the practice of medicine; the Medico-Legal Nature and Importance of Anesthetics, with a brief History of the Discovery of Artificial Anesthesia.

**Orthodontia, or Malposition of the Teeth.** By S. H. Guilford, A.M., D.D.S., Ph.D.  
For sale by Wilmington Dental Co.

This work has been written at the request of the National Association of Dental Faculties, in furtherance of its plan to secure the preparation of a series of text-books for use in American dental colleges. After its completion and examination it was accepted and endorsed by the Association at its meeting in Saratoga, August, 1889.

The impartment of instruction in the simplest and most direct manner being the true province of a text-book, the author has endeavored, in the preparation of this work, to treat the subject as concisely as possible, and to clothe his thoughts and those of others in such language as to be readily comprehended by beginners as well as those somewhat advanced in this branch of study.

In the treatment of the subject, the aim has been to lead the student, step by step, from the simplest beginnings to the more complicated and difficult work of practical treatment. To this end the underlying principles of the art are first elucidated; after which the principal methods employed are explained; and, lastly, the correlation of principles and methods is shown in their practical application to typical cases. In Part III, the different forms of irregularity, together with a variety of plans for their correction, are arranged under such headings and in such order as to be readily referred to in seeking aid for cases that occur in office practice.

## Miscellaneous.

### Practical Uses of Electricity.

TWENTY QUESTIONS AND ANSWERS ABOUT ELECTRICAL MATTERS.

1. How strong a current is used to send a message over an Atlantic cable?  
Thirty cells of battery only; equal to thirty volts.
2. What is the longest distance over which conversation by telephone is daily maintained?  
About 750 miles, from Portland, Me., to Buffalo, N. Y.
3. What is the fastest time made by an electric railway?  
A mile a minute, by an experimental car. Twenty miles an hour on street railway.
4. How many miles of submarine cable are there in operation?  
Over 100,000 miles, or enough to girdle the earth four times.
5. What is the maximum power generated by an electric motor?  
Seventy-five horse-power; one hundred horse-power will soon be reached.
6. How is a break in a submarine cable located?  
By measuring the electricity needed to charge the remaining unbroken part.
7. How many miles of telegraph wire in operation in the United States?  
Over a million, or enough to encircle the globe forty times.
8. How many messages can be transmitted over a wire at one time?  
Four, by the quadruplex system in daily use.
9. How is telegraphing from a moving train accomplished?  
Through a circuit from the car roof inducing a current in the wire on poles along the track.
10. What are the most widely separated points between which it is possible to send a telegram?  
British Columbia and New Zealand, via America and Europe.
11. How many miles of telephone wire in operation in the United States?  
More than 170,000, over which 1,055,000 messages are sent daily.
12. What is the greatest candle-power of arc light used in a light-house?  
Two million, in the light-house at Housholm, Denmark.
13. How many persons in the United States are engaged in business depending solely on electricity?  
Estimated, 250,000.
14. How long does it take to transmit a message from San Francisco to Hong Kong?  
About fifteen minutes, via New York, Canso, Penzance, Aden, Bombay, Madras, Penang, and Singapore.
15. What is the fastest time made by an operator sending messages by the Morse system?  
About 42 words a minute.
16. How many telephones are in use in the United States?  
About 300,000.
17. What war vessel has the most complete electrical plant?  
United States man-of-war "Chicago."
18. What is the average cost per mile of a transatlantic submarine cable?  
About \$1,000.
19. How many miles of electric railway are there in operation in the United States?  
About 400 miles, and much more under construction.
20. What strength of current is dangerous to human life?  
Five hundred volts, but depending largely on physical conditions.

### A Revolution in Printing.

THE successful introduction of typesetting machines into a number of newspaper offices in the United States has greatly stimulated their competitors, and early in the autumn the New York *Sun*, *Times*, *World*, and other papers, will commence their use. It is also said that the *Herald* will employ them. Probably one-half of the one thousand compositors engaged upon the morning dailies will be dropt.

It is now announced that Theodore L. De Vinne, the printer of the *Century* magazine, has completed arrangements to have his typesetting done by machinery. Upon reliable authority it is stated that a syndicate of book publishers in New York have likewise made arrangements to put fifty or a hundred typesetting machines into a co-operative office, where all the body matter of cheap publications turned out in New York will be set up. This arrangement, which will be in working order upon the first of next January, is likely to increase the annual output of novels by one hundred per cent., and reduce the already low price one-half.

The announcement that the *Century* magazine is to be set up by machinery,

following so closely upon the action of several publishers of New York daily newspapers, who have made arrangements to introduce the Rogers and Mergenthaler machines in their composing rooms this fall, will be of momentous interest to the printers. A member of New York Typographical Union No. 6, says:

"Of course, some members of the Union are a little skeptical as to the benefit these machines will be to the followers of the craft, but the whole history of labor-saving machinery teaches us that nothing has yet been invented that has lessened the need of good workmen. When typesetting machines have been introduced in every newspaper office in the country, it will lessen the cost of composition to such an extent that papers which now contain eight pages will have twelve, and four-page papers will be increased to eight. The introduction of the machines will be a good thing for first-class men, but it may injure those who make a practice of tramping all over the country, working only one or two nights at a time."—*National Publisher and Printer*.

### Tar Smoke for Diphtheria.

DR. DELTHIL'S CURE TRIED WITH SUCCESS ON A NEW YORK PATIENT.

RUTH LOCKWOOD, the nine-year-old child of Thomas Lockwood, a compositor in the *Times* office, became violently ill with diphtheria on Tuesday night. She was so weak that it was deemed dangerous to try tracheotomy, or cutting open the windpipe. On Thursday Dr. Nichols, of 117 West Washington place, who was attending her, received a copy of the *Paris Figaro*, which contained a report made to the French Academy of Medicine by Dr. Delthil. Dr. Delthil said that the vapors of liquid tar and turpentine would dissolve the fibrinous exudations which choke up the throat in croup and diphtheria.

Dr. Delthil's process was described. He pours equal parts of turpentine and liquid tar into a tin pan or cup and sets fire to the mixture. A dense resinous smoke arises, which obscures the air of the room.

"The patient," Dr. Delthil says, "immediately seems to experience relief; the choking and rattle stop; the patient falls into a slumber and seems to inhale the smoke with pleasure. The fibrinous membrane soon becomes detached, and the patient coughs up microbicides. These, when caught in a glass, may be seen to dissolve in the smoke. In the course of three days afterward the patient entirely recovers.

Dr. Nichols tried this treatment yesterday with little Ruth Lockwood. She was lying gasping for breath when he visited her. First pouring about two tablespoonfuls of liquefied tar on an iron pan, he poured as much turpentine over it and set it on fire. The rich resinous smoke which rose to the ceiling was by no means unpleasant. As it filled the room the child's breathing became natural, and as the smoke grew dense she fell asleep.

Do you know how many \$1 bills it takes to weigh as much as a \$20 gold piece? Driving out to White Bear recently, one of those walking compendiums of useful information sprang the above query, and the opinions that it elicited showed a remarkable range. One member of the party, whose business is to handle money in large sums, after profound thought, suggested that the number would be from 1,000 to 1,200. Others guessed down the line to 500, but no one less than that number. After all had placed themselves on record, the compendium stated that the number of bills was 30 or 31, according to their condition as to dirtiness and age.—*St. Paul Pioneer Press*.

Passing to a consideration of the question of preparatory dental education, the address of the president of the late American Dental Association took the ground that dental education commenced when the student began the study of dentistry, whether in the office of a preceptor or in a reputable school. The previous general education either qualified him for this or it did not. Was it not, after all, a question of qualification, whether one year, or five years, or original capacity?

**A Still Better Rheumatic Ointment.**—Dr. J. Dinwiddie, of Fayetteville, Tenn., writes us that the ointment we published in August ITEMS was not originated by a French quack, as we announced, but was taken by him, or by some one else, from the U. S. Dispensatory. He says the one part sulphuric acid and seven parts Adep's prep., is much improved by adding two parts oil turpentine.

Dr. Dinwiddie says: "This is nearer a specific for sprains than anything I have ever known, as well as a fine application for rheumatism. I have used it since 1850."

**Remedy for Roaches.**—Take three pounds of oatmeal, or meal of Indian corn, and mix it with a pound of white lead; moisten with treacle so as to form a good paste, and put a portion down at night in the infested building. Repeat for a few nights alternately, and in the morning remove the paste and the corpses to a convenient place.